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CITY OF SPRINGFIELD

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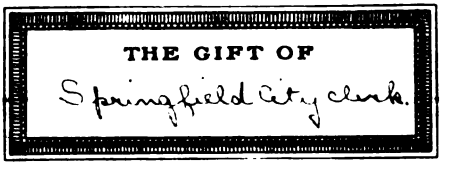

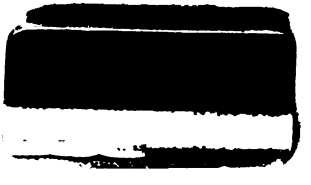

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Commonwealth of Massachusetts

MUNICIPAL REGISTER

OF THE

CITY OF SPRINGFIELD

FOR

—1912—

CONTAINING

CITY OFFICERS AND COMMITTEES, MAYOR'S ADDRESS, REPORTS OF THE VARIOUS OFFICERS AND COMMITTEES; ALSO, THE RECEIPTS AND EXPENDITURES FOR THE FISCAL YEAR ENDING NOVEMBER 30, 1911.

PRESS OF
SPRINGFIELD PRINTING AND BINDING COMPANY,
SPRINGFIELD, MASS.

1912.

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CITY OFFICERS

FOR 1912

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CITY OFFICERS, 1912.

MAYOR—EDWARD H. LATHROP.

ALDERMEN—President, John A. Denison; Ward One, Edward S. Goldthwaite; Ward Two, Henry Lasker; Ward Three, H. Goodman Waters; Ward Four, John A. Denison; Ward Five, William A. Dodge; Ward Six, Frank E. Stacy; Ward Seven, Charles B. Hitchcock; Ward Eight, John G. Maxfield.

Clerk—Elijah A. Newell.

COMMON COUNCILMEN—President, J. Frank Drake; Ward One, George S. Cook, Charles J. Jefferson; Ward Two, John P. Cannon, William H. Grady, John J. Walsh; Ward Three, George W. Streeter, George W. D. Upton; Ward Four, Robert P. Marsh, George W. Pike; Ward Five, Charles A. Allbe, J. Frank Drake; Ward Six, Henry Martens, Patrick W. Russell; Ward Seven, Julian R. Albee, Edward T. Broadhurst Ward Eight, Giles Blague, Charles M. Goodwin, George A. Lanciaux.

Clerk—George J. Clark.

STANDING COMMITTEES OF THE CITY COUNCIL.

COMMITTEES OF THE BOARD OF ALDERMEN.

Enrollment—Aldermen Maxfield, Dodge and Waters.

Elections and Returns—Aldermen Denison, Dodge and Goldthwaite

Sewers and Drains—Aldermen Dodge, Maxfield and Goldthwaite.

Ordinances—Aldermen Lasker, Stacy and Hitchcock.

Poles and Wires—Aldermen Dodge, Lasker and Maxfield.

Itinerant Vendors' Licenses—The Mayor, Aldermen Maxfield and Dodge.

State and Military Aid—The Mayor, Aldermen Waters and Stacy.

Forestry—Aldermen Lasker, Goldthwaite and Maxfield.

Petty Licenses—Aldermen Hitchcock, Stacy and Dodge.

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COMMITTEES OF THE COMMON COUNCIL.

Ordinances—Councilmen Pike, Lanciaux and Jefferson.

Enrollment—Councilmen Walsh, Blague and Martens.

Elections and Returns—Councilmen Upton, Marsh and Lanciaux.

JOINT STANDING COMMITTEES.

Finance—The Mayor, Aldermen Waters, the President of the Common Council, and Councilmen Broadhurst and Russell.

City Property—Aldermen Maxfield and Lasker, Councilmen Goodwin, Cook and Grady.

Fire Department—Aldermen Denison and Waters, Councilmen Pike, Blague and Marsh.

Pauper Department—Aldermen Dodge and Hitchcock, Councilmen Walsh, Martens and Jefferson.

Lighting Streets—Aldermen Hitchcock and Stacy, Councilmen J. R. Albee, Streeter and Cannon.

Streets and Sidewalks—Aldermen Goldthwaite and Denison, Councilmen C. A. Allbe, Upton and Martens.

Printing—The Mayor, the President of the Common Council, and Councilman Lanciaux.

Board on Claims—The Mayor, Alderman Lasker and the President of the Common Council.

Supervisors of Highways and Bridges—The Mayor, Alderman Goldthwaite and Councilman C. A. Allbe.

CITY CLERK—Elijah A. Newell.

ASSISTANT CITY CLERK—Annie H. Hawkes.

CLERICAL ASSISTANTS—Cora B. Haskell, Carrie M. Riley, Clifford F. Smith, Beatrice L. Gath, Ruth N. Ody.

CITY TREASURER—Eliphalet T. Tifft.

TREASURER'S DEPUTY—John P. Bishop.

CLERICAL ASSISTANTS—George W. Rice, Jr., Margaret E. McCaughan, Agnes Pope.

AUDITOR OF ACCOUNTS—William C. Marsh.

CLERICAL ASSISTANTS—Isabelle Hicks and Gertrude Rowland.

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CITY COLLECTOR—Charles A. Frazer.

COLLECTOR'S CLERK—Ralph L. Munn.

CLERICAL ASSISTANTS—Elizabeth H. Clark, Fannie M. Brown, Grace K. Burgin, Frederic W. Day, Leone C. Johnson.

ASSESSORS—Frank S. Crane, George B. Smith, Frank A. Lawton.

ASSISTANT ASSESSORS—Michael F. Kelliher, John Davis, William G. Ryan, Charles T. Hudson, Erwin F. Markham, William S. Wallace, Charles E. Murray, John W. Holton, Samuel A. Read, Arthur S. Burt, Frederick W. Brennan, Benjamin R. Franklin.

OVERSEERS OF THE POOR—The Mayor, Dr. Joseph N. Boyer, Jr., Arthur A. Call, Henry P. Norris, William R. Thacker.

AGENT—Edward I. White.

CLERICAL ASSISTANTS—Jennie S. Lombard, Marjorie W. Ward.

SUPERINTENDENT OF ALMSHOUSE—Lyman W. Sexton.

CITY PHYSICIAN—Dr. Joseph N. Boyer, Jr.

CITY SOLICITOR—James L. Doherty.

ASSISTANT CITY SOLICITOR—Josiah Dearborn.

CITY PROSECUTING ATTORNEY—Raymond A. Bidwell.

MAYOR'S CLERK—Helen P. Emery.

CITY ENGINEER—Charles M. Slocum.

ASSISTANT ENGINEER—Herbert E. Flint.

CITY MESSENGER—Stephen P. Burns.

ASSISTANT MESSENGER—James H. Lay.

ACTING SUPERINTENDENT OF STREETS—Arthur H. Woodward.

ASSISTANT SUPERINTENDENTS—Arthur H. Woodward. Howard O. Buck, Superintendent of Sewers.

CLERK AND BOOKKEEPER—Alice E. Hathaway.

BOARD OF HEALTH—Edgar H. Guild, Health Physician, Dr. T. F. Rearden and Philip V. Erard.

AGENT OF THE BOARD OF HEALTH—William L. Young.

CLERK FOR AGENT—Grace E. Warren.

SANITARY INSPECTORS—Jacob R. Sackett, Frank A. Murray and Henry Wright, Jr.

CITY FORESTER—William F. Gale.

SMOKE INSPECTOR—William F. Gale.

SUPERINTENDENT OF SCHOOLS—James H. Van Sickle.

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SUPERINTENDENT'S CLERK—Fred L. Ward.

SCHOOLHOUSE AGENT—Hiram L. Dorman.

SCHOOL COMMITTEE—The Mayor; at large, Edward H. Wilkinson; Ward One, Wayland V. James; Ward Two, Irving S. Pulcifer; Ward Three, Ralph B. Ober; Ward Four, Leona May Peirce; Ward Five, Esther J. Morgan; Ward Six, Frederick Harris; Ward Seven, Francis M. Bennitt; Ward Eight, George H. Howard.

TRUANT OFFICER—John A. Parker.

ASSISTANT TRUANT OFFICER—Harry A. Killmer.

KEEPER OF THE LOCKUP—Charles M. Wright.

SEALER OF WEIGHTS AND MEASURES—James L. Bowen.

DEPUTY SEALER OF WEIGHTS AND MEASURES—Albert Geer

INSPECTOR OF MILK—Stephen C. Downs.

ASSISTANT INSPECTOR OF MILK—James A. Gamble.

INSPECTOR OF VINEGAR—Stephen C. Downs.

INSPECTOR OF ANIMALS—Harry Lukes.

SUPERINTENDENT OF STREET LIGHTS—W. J. Converse.

INSPECTOR OF PETROLEUM—George E. Kimball.

BUILDING COMMISSIONER—Fred W. Lumis.

BUILDING INSPECTOR—Abner P. Leshure.

BUILDING INSPECTOR—Daniel W. Campbell.

PLUMBING INSPECTOR—Frank W. Tower.

ASSISTANT PLUMBING INSPECTOR—Ernest G. Bates.

CLERICAL ASSISTANT—Alice Ferguson.

BOARD OF APPEAL—George C. Gardner, Thomas O'Brien, James F. Walls.

INSPECTOR OF COAL AND COKE—James L. Bowen.

FISH WARDEN—James P. Hatch.

WATER COMMISSIONERS—The Mayor, Fred R. Brown, Herbert C. Puffer.

SUPERINTENDENT OF WATER WORKS—A. E. Martin.

WATER REGISTRAR—Alfred R. Hathaway.

BOARD OF PUBLIC WORKS—Claudius C. Margerum, Frank G. Tobey, Willis A. Ford.

BOARD OF REGISTRARS OF VOTERS—Orthello K. Merrill, William W. Bartlett, John W. Nolan, E. A. Newell, Clerk.

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ASSISTANT REGISTRARS OF VOTERS—Warren P. Underwood, Arthur P. Cook.

CLERICAL ASSISTANT—Edith M. Ware.

FIRE COMMISSIONERS—Edward A. McClintock, Charles F. Brown, Frank H. Wesson, Octave A. LaRiviere, John A. Denison.

ENGINEERS OF THE FIRE DEPARTMENT—Chief, William H. Daggett; first assistant, Everett A. Kimball; second, Burton Steere; third, John R. Graves; Superintendent of Fire Alarms, Samuel L. Wheeler.

PARK COMMISSIONERS—Daniel J. Marsh, Everett H. Barney, Nathan D. Bill, Theodor Geisel, Dr. Andrew J. Flanagan.

PARK SUPERINTENDENT—Charles E. Ladd.

COMMISSIONERS OF SINKING FUNDS—Robert O. Morris, A. B. Wallace, A. Willard Damon.

LICENSE COMMISSIONERS—William M. Titus, Charles P. Chase, John H. Clune.

NEW BRIDGE COMMISSIONERS—Edwin F. Lyford, Nathan D. Bill, Everett E. Stone.

MUNICIPAL BUILDING COMMISSION—Mayor, ex officio; Walter H. Wesson, George Dwight Pratt, William G. McKechnie, Henry Lasker, J. Frank Drake and George W. D. Upton.

RIVERFRONT ADVISORY COMMISSION—Edward H. Lathrop, Mayor; John A. Denison, J. Frank Drake, Nathan D. Bill, Charles W. Bosworth, Henry H. Bowman, Henry H. Skinner, William W. McClench, Michael Dunn, Patrick J. Mitchell.

CHARTER COMMISSION—Mayor, ex officio; John A. Denison, John G. Maxfield, Edward T. Broadhurst, Patrick W. Russell, Frank D. Kemp, William H. McClintock, Rev. Augustus P. Reccord, Joseph C. Allen.

POLICE DEPARTMENT.

POLICE COMMISSIONERS—Fred O. Clapp, John W. Kennely, Edward H. Cullen.

CHIEF OF POLICE—William J. Quilty.

DEPUTY CHIEF OF POLICE—Charles M. Wright.

CAPTAINS OF THE WATCH—John J. O'Malley, Henry M. Perkins.

LIEUTENANTS—David J. Manning, Charles A. Wade.

SERGEANTS OF POLICE—John Hall, E. Frank Goodwin, Patrick J. McCallin, Edgar A. Littlefield, Patrick H. McDonald, James C. Burke, Michael J. O'Brien.

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CHIEF INSPECTOR—JOHN H. BOYLE.

INSPECTORS—John St. Ledger, Martin P. Costello, George H. Norris, James T. Raiche.

POLICE MATRONS—Maria E. Holley, Mrs. Delia E. Flanagan.

CLERK—C. Pantasides.

POLICE OFFICERS.

NIGHT AND DAY WATCHMEN AND POLICE OFFICERS.

George L. DeForest,
Paul J. O'Brien,
Ernest Rosenberg,
John H. Dunleavy,
Thomas Ranney,
James W. Murtagh,
Calvin W. Jennings,
David H. Newcomb,
Michael C. Quinlivan,
Michael R. Donovan,
Chas. H. O'Connell,
Ward E. Maranville,
Edgar A. Kirk,
Frederick L. Thayer,
Albert H. Shaw,
James J. Donovan,
Edward P. Tilton,
James M. Daly,
James H. Rogers,
John A. Swift,
Michael F. Egan,
Patrick O'Keefe,
Andrew J. Melaney,
Albert F. Ward,
Simon J. Connery,
Ovila L. Huot,
Michael Kennedy,
William J. Grady,
Daniel J. Twohig,
Timothy J. Hallahan,
Charles W. Geary,
John F. Bacon,
John L. Maloney,
Ernest P. Marble,
James F. Dagnan,
Alexander Gray,
Edwin C. Holbrook,
Henry C. Hatfield,
Patrick Lynch,
John P. Sullivan,
Patrick J. O'Connor,
Thomas Maloney.
Frederick J. Runnells,
Marshall A. Belmer,
William J. Hurley,
Llewellyn D. Carey,
Wm. F. Goldrick,
Michael F. Sullivan,
Joseph D. Powers,
Fred W. Garipay,
Edward Carey,
Everett B. Bogert,
Neal Ferry,
Wm. McDougall,
Horace G. Clark,
Aime L. J. Letendre,
Frederick P. Smith,
George F. Russell,
Joseph A. Murphy,
James A. Dowling,
James H. O'Brien,
John McNeil,
Durham N. Pepin,
Thomas B. Drinan,
Clarence E. Bradway,
James J. Collins,
Walter L. Henderson,
Bernard J. F. Bergren,
Edward J. Rathbun,
Peter H. Walsh,
John F. Donoghue,
William S. Bates,
Daniel F. McCarthy,
John LaFond,
Patrick J. Fenton,
James T. Tucker,
Frederick J. Sevigne,
Alfred H. Penfield,
Robert Rennison,
John A. Hamberg,
Myron H. Bullard,
John A. Driscoll,
Harley H. Blodgett,
Charles Martens,
Perley J. Hewey,
Edward G. Quinlivan,
William J. Hogan,
Herbert A. Clark,
John F. Carlton,
Ernest C. Smith,
James F. Mullins.

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Reserve Police Force.

George E. Lynch,
Michael Flannery,
Howard F. Tourtellotte,
John G. Flynn,
Edward J. Slattery,
Michael J. Curley,
Arthur H. Carrigg,
Jeremiah B. O'Leary,
Charles Hanlon,
John Hayes,
Patrick J. Keane,
Thomas F. Connery,
Louis H. Pilon,
Frank W. Quilty,
Eugene F. Kelleher,
James E. Martin,
James P. Gray,
Thomas Kavanaugh,
Mathew P. Ryan,
William F. Lonergan,
Raymond F. Connelly,
Patrick B. Sullivan.

Special Police Officers.

Moses Abdow,
Henry P. Anderton,
Dexter A. Atkins,
Rowland Atkinson,
John H. Barnes,
Joseph E. Barnes,
Thos. H. Benton, Jr.,
Morris Bilsky,
William C. Bozenhard,
Archibald Brown,
Arthur T. Bugbee,
Harry R. Button,
Wm. J. Callahan,
John Carr,
Thomas H. Cartmill,
Orrin G. Cash,
Geo. W. Clampit,
John H. Collins,
Edgar C. Collins,
John J. Connor,
James J. Crowe,
Michael J. Crowley,
Chas. W. Cummings,
Antonio Dantono,
C. O. Davis,
Patrick L. Dowd,
C. H. Dustin,
Frank Dutton,
Frederick A. Dubois,
Carl L. Farmer,
Thomas Foster,
H. G. Fox,
George Frongie,
William A. Gaunt,
Harry E. Gibbs,
William H. Grady,
William J. Hanifin,
John L. Harrington,
Wm. C. Harrington,
John E. Hawkins,
John E. Hickey,
Dennis A. Hogan,
Henry J. Howard,
John Hurley,
Charles Ireland,
James H. Jones,
Hayward C. Joynes,
A. E. Keith,
John E. Kelly,
W. H. Knapp,
H. B. Lamberton,
Thomas J. Leahy,
Clayton J. Lewis,
H. C. Lombra,
Edward Long,
Michael D. Lynch,
George F. Maher,
Sarkis Mansour,
William J. McCarthy,
George E. McCormick,
Montague R. Marsh,
Alfred E. Miller,
A. S. Miller,
Dwight B. Montague,
Charles E. Moody,
Clarence H. Moon,
Daniel J. Moriarty,
John H. Murphy,
Frank A. Murray,
John H. Myers,
Ellsworth C. Myers,
Michael M. O'Sullivan,
C. Pantasides,
Clayton F. Peters,
Sumner W. Rainger,
L. E. Ranslow,
Fred E. Ripley,
John Robinson,
John Rohan,
Walter H. Rollins,
Frank F. Rolzhausen,
M. J. Sarsfield,
Justus A. Schelb,
Jere J. Shea,

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James Sinclair,
Homer B. Smith,
Ralph E. Smith,
Lovell S. Spaulding,
Clifford J. Staples,
Andrew J. Stapleton,
George St. Marie,
Barney Theriaque,
James H. Thornton,
Dustin A. Tice,
E. F. Tillson,
Samuel L. Wheeler,
Max Wiener,
C. E. Willard,
George H. Wood,
Henry Wright, Jr.

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MAYOR'S ADDRESS.

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MAYOR'S INAUGUAL ADDRESS.

Gentlemen of the City Council:—

Although this is, under the new law, a continuing administration—recruited, however, with new material—I do not deem it inappropriate to address you in the guise of a somewhat informal inaugural, because of the important and unusual conditions confronting us as a municipality.

RAILROAD PROBLEM.

Our railroad problem, starting with the special act obtained in 1907, is still with us. Aided by the many plans and suggestions brought forward, we ought to be able now to determine the salient features of a plan which the City should adhere to. By the process of elimination we have reached a point where the elements of some plan acceptable to the City should be found. The settlement of this vexed question, having in mind the component parts of a new bridge and street extensions, in both of which the City is most deeply interested, should be seriously considered by the City Council during the coming year.

MUNICIPAL BUILDINGS.

The group itself will be a handsome set of buildings. To its completion we are committed, and it will be necessary in any event to furnish the money for such completion.

The purchase of additional land properly to set and empha-

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size the buildings should be deferred. That the acquirement of this land would be desirable is undoubted; that it is not proper or feasible at this time, in view of the necessary expenditures which we must make outside of the ordinary appropriations, is emphatically true.

STREET WORK.

I want to reiterate what I said a year ago in reference to permanent street work. Good streets are a great asset for a community, both for use and advertisement. In a busy city, good streets cannot be secured without permanent street work, and this kind of work can only be accomplished with considerable outlay. So far as possible or consistent with our other undertakings, such outlay should be made. Gratifying progress has been made during the year in the construction of paved streets. This progress I trust we may be able to continue during the ensuing year.

DEPARTMENTS.

As a general proposition, all our departments are well equipped and doing satisfactory work. Our increase in numbers, with resultant increase in inhabited territory, has called for a steadily increasing expenditure in several departments. As an essentially residential city, the requirements in respect to these departments are greater than in other cities of larger population. Additional calls from all these departments are now being made, or will be made at the time of making up our annual budget.

The City Council is the central body of the City and must

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consider first the general public interest. Even in these days when expenditures in all departments, public and private, are running high, a reputation for a high tax rate and a large debt is detrimental to a city. Great caution must be exercised in increasing the appropriations for different departments, and no special appropriation should be made unless to meet the most pressing needs. No city in the Commonwealth, and only one or two cities in the country, even equal the credit of the City of Springfield. This credit can only be maintained by the exercise of wise oversight on our part in anticipating and preparing for coming public achievements for which expenditures and appropriations will be necessary, and by prudent management and expenditure in our routine affairs.

DISPOSAL OF GARBAGE.

I commend for your consideration the matter of the possible installation of a plant for the disposal of garbage and other combustible rubbish. Our present garbage collection system is awkward, expensive, and in ways offensive, and by the installation and use of a crematory plant this may be largely and almost entirely done away with. Successful plants of this character are already installed and in successful operation in many cities of this country, and the expense of operation in some, if not many, cases where this method is employed, is less than is incurred in our somewhat crude and unsatisfactory system. The crematory process is a conservator, in a large measure, of the public health. This condition is a self-evident proposition, and does not need elaboration.

I suggest and advise an early investigation of this matter,

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and, if the City Council commits itself to this method, that it may be done early in our municipal year. My own judgment leads me to the conclusion that it is the wisest and most successful and economical method for the disposal of garbage and refuse, and the sooner it is adopted, so much earlier the City will be benefited.

STREET RAILWAY.

The Street Railway with its constantly expanding business is a continual applicant to the Board of Aldermen for additional franchises and privileges. These franchises once granted may not ordinarily or extraordinarily be revoked. While the City should extend to this corporation all the facilities that shall be instrumental in developing and accomplishing its functions, I suggest that, in the future, large consideration shall be given to these applications before granting, to the end that the City shall have reciprocal recognition from this corporation in the conduct and control of its business. Without being hypercritical concerning the deficiencies of operation apparent and pertaining to said company, it is a fact that many of these deficiencies may be remedied without expense or even inconvenience to this company, by which the people might be largely benefited, and the cause of many complaints removed. Accumulating deficiencies of operation make a situation that annoys the patrons of this company. The unnecessary accumulation and the continuance of annoyances and derelictions of operation of the railway results in large discomfort and annoyance to the public, and when continued without apparent attempt to relieve such situation, becomes

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exasperating. Deficiencies of operation that are apparent and recognized by the management, and have been for many seasons, continue unremedied, and, I believe, without excuse. This condition should not obtain or be allowed to obtain by this people, without effective remonstrance and at least attempted remedy. I do not believe in, or recommend, unnecessary pursuit of this company in the conduct of its affairs, but the public have some rights, written and unwritten (most of them unwritten, for the existing statutory provisions at present in force are largely in balance in favor of the Street Railway Company), and when conditions exist apparent and unnecessary, as I have before suggested, and as they do at present, there is no reason why relief should not be accorded to the public without iterated or reiterated complaints from the people and from officials. Compliance by the company in the removal of such situations, and the remedying of such defects, inconveniences, and methods, made within a reasonable time after the company becomes conversant with their existence, would be a gracious thing upon the part of this corporation.

Our streets are being subordinated to the express trolley traffic, much to the profit of the company, and much to the increased risk of the public's original use and methods on the highways. Thus are our streets commercialized for profit, and, so far as the general public is concerned, without reciprocal benefits. The next invasion of our highways will be freight trains driven by power, and unless the people are more mindful of this subversion of original rights, so that if when granted they be hedged about and limited by larger legislation and municipal control, the domination of a great traffic system will be supreme.

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PUBLIC LIGHTING.

I recommend the continued consideration of the acquirement of the public utilities of electricity and gas by the City for public lighting.

A committee was appointed last year for this purpose, but advanced very little in this direction.

In this suggestion, I do not advocate the attempted acquisition at present of these utilities, but the information incident to, and necessary for, intelligent, practical action in the direction of ultimate acquirement, should be in the hands of the City as soon as may be.

FINANCES.

During the past year, $340,000, registered twenty and ten year, four per cent. bonds were issued for the following purposes:

TWENTY YEAR LOANS.

Municipal Heating Plant, ...	$78,000	
Administration and Menagerie Buildings, Forest Park, ...	36,000	
Sumner Avenue School Building, . . .	84,000	
Pine Street Addition and Land, Fire Department, ...	36,000	
Isolation Hospital Buildings, ...	18,000	
Fire Station, North Street, and Land, . .	68,000	
		$320,000

TEN YEAR LOAN.

Locust Street Extension, ...	20,000
	$340,000

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The premium received for this bond issue was $14,114, making the interest basis 3.51%, and the sale one of the most successful held by any municipality during the year.

The municipal heating plant for which $78,000 was borrowed is a joint expense of the Municipal Group and the Police and Fire Headquarters buildings. Later, if deemed advisable, the equipment for heating the aforesaid buildings can be supplemented by electric machinery for lighting the same.

The fire department fared generously in the bond issues, $68,000 being appropriated for a fire station on North Street, corner of Patton, and $36,000 for the enlargement of the Pine Street station.

The bond issue for the Isolation Hospital ($18,000) was very much under expectations, as originally the estimated cost was $150,000 to $175,000, on plans submitted. Since the bond issue, $10,500 more has been appropriated for completing and furnishing the buildings of the Isolation Hospital, which with a preliminary appropriation of $2,000 makes the total appropriated to date for this hospital $30,500.

The estimated cost of the Locust Street extension and layout was $30,000, of which sums the Springfield Street Railway Company has agreed to pay $10,000, leaving the balance of $20,000 which was included in the bond issue.

The growth of the school population necessitates the building of at least one schoolhouse every year. Last year, the demands of the Forest Park section were met by the erection of a primary school, for which $84,000 was borrowed.

Maturing bonds, paid in 1911, totalized $134,200, against the new issue of $340,000 bonds, leaving the net increase of the funded debt for the year $205,800.

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The total assessors' valuation of real and personal property amounted to $127,249,343, an increase of $8,453,000 over 1910, and nearly $20,000,000 over 1909. This wonderful growth of tax values in two years has been fortunate for our City, as every million in taxable valuations adds $16,500 in revenue for maintenance expenses, and $25,000 to the limit of the borrowing capacity.

Owing to the valuation increase and the fact that the debt limit of $478,000 at the beginning of last year was only used to the extent of the issue of $340,000 of bonds during the past year, our present debt limit has increased to $574,000.

According to the estimates the cost of a site for a Commercial High School, and the erection of a suitable building, would require a bond issue that would use up a larger portion of the present debt limit.

In the Inaugural Address a year ago, it was suggested that the amount of $1,000,000 authorized by the Legislature to be borrowed outside the debt limit for the construction of the Municipal Group would not be sufficient. Recent estimates of the Commission and the Finance Committee make the total sum necessary to complete the buildings in the manner that the Commission would approve, including fixtures and furniture, nearly $500,000. If land and buildings are purchased, west of the group, in order to give the needed setting, at least $300,000 more would be required. It would be well to petition the Legislature at once for permission to issue bonds, in excess of the limit, for all that will be required for the Municipal Group, even if advantage is not immediately taken of permission to issue bonds for purchasing the land.

For many years our tax rate has been among the lowest of

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the cities in the Commonwealth, owing to the fact that the amount required for debt and interest charges has not been large, but as we continue to increase the debt, the tax rate increases, and last year reached the total of $16.50 a thousand, the highest rate since 1875. With our present valuation, a $1,000,000 increase in debt, bonded for 40 years, adds 50 cents a thousand to the tax rate. It is safe to predict that for some years after the completion of the Municipal Group (including attendant expenses) the cost will be reflected in the annual tax rate by an increase of not far from $1.00 per thousand.

At the close of the fiscal year, the City Treasurer's report shows a large cash balance, owing to the unexpended balances remaining in the special appropriations, the money for most of the purposes being originally provided by bond issues.

A table is appended herewith, prepared by the Treasurer, showing the unexpended balances against these special appropriations, which gives an idea of the undertakings which are being carried to completion irrespective of the regular departmental expenses.

Unexpended balances in special appropriations and accounts included in the cash balance at the close of the fiscal year:—

Bridge Commission,	$1,978.35
Court Square Extension,	42,566.12
Central Street School, additional land,	535.87
Central Heating Plant,	26,041.48
Charter Revision,	741.65
Forest Park, additions,	10.00
Forest Park, new buildings,	8,835.56
Fire Apparatus, motor,	20,135.32
Fire Station, North Street,	61,097.50

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Fire Station, Pine Street addition,	$7,839.21	
Gerrish Park,	839.44	
Highways and Bridges, Street Railway taxes,	42,245.48	
High Schools Lunch Fund,	1,394.05	
Isolation Hospital, additions,	16,681.66	
Little River Water Supply,	190,127.94	
Lincoln School,	2,631.25	
Locust Street Extension,	4,542.50	
Municipal Group,	552,223.51	
North Street Extension,	226.19	
Pecousic Avenue, relocation and improvements,	5,509.83	
Premium on City bonds,	23,658.89	
Public Parks,	1,667.61	
River Front,	4,367.13	
Schoolhouse, Sumner Avenue,	35,056.10	
School Buildings, fireproofing,	1,311.68	
Total amount,		$1,052,264.32
Amount included in cash balance available for water works sinking fund,		9,952.96
Available cash at the beginning of the fiscal year of 1912,		65,151.92
Cash in Treasury, December 1, 1911,		$1,127,369.20

The following table, taken from the City Treasurer's report, shows the relative growth of the department appropriations, the debt other than water debt, and the taxable valuation of real and personal property in the City from 1890 to 1911, inclusive:—

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Year.	Appropriations.	Funded Debt Other than Water.	Assessors' Valuation, Real and Personal.
1890	$507,450	$124,000	$44,493,633
1891	574,425	214,000	48,329,634
1892	609,715	275,000	50,780,987
1893	664,050	263,000	55,239,919
1894	664,000	280,000	56,449,425
1895	732,300	319,500	59,033,141
1896	801,100	339,000	61,416,091
1897	872,300	783,500	64,898,379
1898	909,650	997,000	65,699,713
1899	978,175	968,800	69,869,847
1900	1,030,000	1,227,100	72,358,481
1901	1,075,500	1,379,900	74,338,927
1902	1,130,650	1,362,700	74,838,065
1903	1,170,000	1,480,500	77,207,898
1904	1,230,000	1,573,300	78,868,058
1905	1,270,000	1,809,100	80,904,476
1906	1,310,000	1,987,900	86,505,181
1907	1,360,000	2,059,700	92,378,624
1908	1,510,450	2,377,500	97,098,308
1909	1,614,800	3,230,300	107,875,780
1910	1,830,420	3,882,100	118,457,151
1911	2,039,381	4,107,900	127,249,343

It is a very interesting table, and shows almost phenomenal growth in all columns.

Not to go back of the year 1900, we find that the appropriations for departmental expenses have more than doubled in eleven years. The funded debt, other than for water purposes, has increased three and one-half times, and the taxable values,

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80 per cent. As the tax rate is based upon the valuation, it is inevitable that the tax rate will increase if the appropriations increase faster than the valuation. In 1900, the tax rate was $13.80 per thousand; in 1911, $16.50 per thousand.

After careful examination and analysis of the financial condition of the City, past and present, as shown by the City Treasurer's statement, and with the knowledge that bonds will have to be issued for a Commercial High School, and for the completion of the Municipal Group, to an amount probably not less than $1,000,000, I am of the opinion, and the City Treasurer agrees with me, that it would be an unwise policy to commit the City to any large expenditures of money for public improvements, other than those absolutely necessary, and now pending.

Our tax rate should be considered in all its bearings on the future growth and prosperity of the City, and whether we can afford to allow it to increase above $17 a thousand is as important a question as any confronting the municipality.

With an aspiration and hope for a creditable year in advance of us, and that at the end we may be entitled to the approval of our citizens, I bid you welcome.

EDWARD H. LATHROP,

Mayor.

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REPORT

OF THE

SCHOOL BOARD

OF THE

CITY OF SPRINGFIELD,

MASSACHUSETTS.

1911

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SCHOOL BOARD FOR 1911.

EDWARD H. LATHROP, MAYOR,
CHAIRMAN, *ex officio.*

	TERM EXPIRES.
AT LARGE.—EDWARD H. WILKINSON, VICE-CHAIRMAN, 136 Mill Street.	Dec. 31, 1912
WARD 1.—WAYLAND V. JAMES, 69 Waverly Street.	Dec. 31, 1912
WARD 2.—IRVING S. PULCIFER, 21 Blake Hill.	Dec. 31, 1912
WARD 3.—RALPH B. OBER, 76 Maple Street.	Dec. 31, 1913
WARD 4.—LEONA M. PEIRCE, 247 Union Street.	Dec. 31, 1913
WARD 5.—MRS. ESTHER J. MORGAN, 7 Lincoln Street.	Dec. 31, 1913
WARD 6.—FREDERICK HARRIS, 270 Maple Street.	Dec. 31, 1911
WARD 7.—FRANCIS M. BENNITT, 120 Sumner Avenue.	Dec. 31, 1911
WARD 8.—FRANK N. SEERLEY, 180 Westford Avenue.	Dec. 31, 1911

SECRETARY,
BERTHA M. McCONKEY.

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New Buildings.
MR. JAMES, MR. WILKINSON, and MR. HARRIS.

Repairs.
MR. PULCIFER, MR. WILKINSON, and MRS. MORGAN.

Salaries.
MR. HARRIS, DR. SEERLEY, and MR. JAMES.

Ward One Group of Schools.
Carew street, Brightwood, Lincoln, Jefferson avenue, Armory street, and Chestnut street.
MR. JAMES.

Ward Two Group of Schools.
Hooker and Charles street.
MR. PULCIFER.

Ward Three Group of Schools.
Howard street.
DR. OBER.

Ward Four Group of Schools.
State street, Worthington street, and School street.
MISS PEIRCE.

Ward Five Group of Schools.
Barrows, Tapley, Strickland, and East Union street.
MRS. MORGAN.

Ward Six Group of Schools.
South Main street and William street.
MR. HARRIS.

Ward Seven Group of Schools.
Central street, Forest Park, Kensington avenue, Belmont avenue, Alden street, White street, and Eastern avenue.
DR. BENNITT.

Ward Eight Group of Schools.
Buckingham, Homer street, Indian Orchard Grammar and Primary.
DR. SEERLEY.

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SPECIAL COMMITTEES FOR 1911.

Finance.
THE MAYOR, MR. WILKINSON, and MR. HARRIS.

Text-Books and Supplies.
DR. BENNITT, DR. SEERLEY, and MISS PEIRCE.

Central High School.
MR. WILKINSON, DR. BENNITT, and MISS PEIRCE.

High School of Commerce.
DR. BENNITT, MR. HARRIS, and MR. JAMES.

Technical High School.
DR. SEERLEY, MR. PULCIFER, and MRS. MORGAN.

Industrial School and Manual Training.
MR. JAMES, DR. OBER, and MR. WILKINSON.

Evening Schools.
MR. PULCIFER, DR. BENNITT, and DR. OBER.

Kindergartens.
MRS. MORGAN, MISS PEIRCE, and MR. JAMES.

Ungraded Schools.
DR. OBER, MR. PULCIFER, and DR. SEERLEY.

Physical Culture and Hygiene.
DR. SEERLEY, DR. BENNITT, and DR. OBER.

Music.
MRS. MORGAN, MISS PEIRCE, and MR. HARRIS.

Domestic Science and Arts.
MISS PEIRCE, MRS. MORGAN, and MR. PULCIFER.

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SUPERINTENDENT OF SCHOOLS,

*JAMES H. VAN SICKLE,

Office, 47 Vernon Street. Office hours: School days, from 12 M. to 1 P. M.; Saturdays, from 10 A. M. to 1 P. M.

ASSISTANT SUPERINTENDENT OF SCHOOLS, PRIMARY SCHOOLS, AND KINDERGARTENS,

BERTHA M. McCONKEY,

Office, 47 Vernon Street. Office hours: School days, from 12 M. to 1 P. M.; Saturdays, from 10.30 A. M. to 1 P. M.

CHIEF CLERK,

FRED L. WARD,

Office, 47 Vernon Street. Office hours: 8.30 A. M. to 5 P. M.; Saturdays, 8.30 A. M. to 1 P. M.

CLERKS,

EDWINA A. MILLER, A. LEOTA PINNEY,
CHARLES A. H. PARKER, ANNA F. LEONARD.

SCHOOLHOUSE AGENT,

HIRAM L. DORMAN,

Office, 47 Vernon Street. Office hours: 10.30 to 11.30 A. M. and 4 to 5 P. M.

L. EMELYN TEN EYCK, Clerk.

TRUANT OFFICER,

**JOHN A. PARKER.

ASSISTANT,

H. A. KILLMER,

Office, 47 Vernon Street. Office hour: 1 to 2 P. M.

*Wilbur F. Gordy was Superintendent until September 1, 1911.
**John G. Taylor was Truant Officer until April 1, 1911.

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REPORT OF THE

SCHOOL BOARD.

To the Citizens of Springfield:—

As is customary, the School Committee presents for your consideration a brief statement of some of the more significant features of the work of our schools for the past year.

SCHOOL ACCOMMODATIONS.

Except in the Brightwood district, the elementary schools have not been embarrassed during the year on account of any lack of accommodations. A few of the school buildings are notably below the high standard of safety and convenience exemplified in the newer schools. Prominent in this respect are the Barrows, the Worthington Street, and the Hooker schools.

The proposition of the City Property Committee to replace the old Hooker School on Main street with two modern school buildings to be located on side streets, where there will be less disturbance and danger from heavy traffic, was indorsed by the School Committee at their October meeting, and the following vote regarding the proposition was passed by the Board:—

"Voted, that the School Committee approves the plans of the City Property Committee, as presented by its chairman, for the sale of the Hooker School and the erection of buildings elsewhere for the accommodation of its pupils, providing the School Committee is permitted to occupy the Hooker School building until the new buildings are completed, and provided

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also that this project is not allowed to delay the erection of a High School of Commerce."

Without doubt enough will be realized from the sale of the valuable Hooker School property to erect and equip the proposed new buildings, with the result that much more effective school work will be possible under the improved conditions.

The new Sumner Avenue School, a twelve-room primary building, located at the west end of the Forest Park district, was to have been ready for occupancy in September, 1911, but owing to various delays in building operations, its opening has been postponed until February, 1912. This building is attractively located and is equipped with all the modern school conveniences.

THE OPEN-AIR SCHOOL.

The local Society for the Prevention of Tuberculosis has combined with the School Committee and the City Property Committee in fitting up an open-air school on the ground in the rear of the Lincoln School on North Chestnut street. The Anti-Tuberculosis Society has erected a pavilion that is not only admirably suited to its purpose, but is pleasing and artistic in appearance.

This pavilion has canvas walls that may be rolled up in order to admit air from all sides. It will seat 35 pupils, and there is at one side of the building a large uncovered platform upon which to conduct outdoor calisthenics. This building has been turned over to the city, by the society, for the use of school children who are physically unfit to do effective work under ordinary school conditions.

The City Property Committee has fitted up two rooms in the Lincoln School building for this open-air class, one as a rest room and the other as a combined kitchen and dining room. The School Board provides the teaching force and the

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educational equipment, and the Anti-Tuberculosis Society has furnished warm blankets and a cot for each child, and is meeting the expense of food and service.

SCHOOL BATHS.

Two new bathing centers have been established during the year, one in the Howard Street School and the other in the East Union Street School. These baths have been admirably fitted up, each of the centers having several showers and one bath tub, with set tubs for washing towels. Baths are now in operation in seven of the schools.

The William Street School bath rooms are insufficient for the needs of the school, and the dressing-room facilities are very poor. A portion of the open basement has been screened off to serve as a dressing room, but this is drafty and much too small. There were 13,808 baths given in this school between the 19th of September, 1910, and the 30th of June, 1911, and such patronage calls for better bathing facilities. The expense of moving the showers and tubs into one of the large basement rooms will not be heavy, and the present conditions should no longer be allowed to continue.

The total number of baths given in all the school bathing centers during the year ending June, 1911, was 43,706, an average of 1,092 per week.

When the High School of Commerce is built, arrangements should be made in its basement for a swimming pool, in which school children may be taught to swim. The only available pool at present is that in the Boys' Club building, and this is manifestly inadequate to the needs of the city.

THE CENTRAL HIGH SCHOOL.

In February, the Central High School enrollment will fill the building to its utmost capacity. Next September there

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will probably be an overflow. When the High School of Commerce is built, this overflow can be taken care of in that building until such time as the High School of Commerce itself reaches its capacity. If such provision is to be made for the overflow of the Central High School, efficient arrangements can be made only on condition that the buildings are located near each other.

Whatever the ultimate decision regarding the High School of Commerce, the erection of a new building offers an opportunity to solve the gymnasium problem of the Central High School which should not be neglected. The present so-called gymnasium is nothing but a makeshift, and the girls' physical department is greatly handicapped by the lack of suitable facilities. The boys are obliged to go to the Technical High School for their gymnasium work, a plan that involves some difficulties. The ideal plan would be to have the High School of Commerce on Temple street, with a gymnasium large enough to accommodate the boys and girls of both schools, and a subway under Temple street to allow passage back and forth. This plan contemplates the care of the Technical High School boys and girls in the gymnasium of their own building. When eventually the High School of Commerce becomes so large that it can no longer accommodate the overflow from the Central High School, the latter can be provided with a gymnasium of its own, in the addition that must then be erected.

THE HIGH SCHOOL OF COMMERCE.

It should be noted that the High School of Commerce is still hampered by the lack of a building of its own. Its sessions are being held in the Central High School after the pupils of that school have been dismissed for the day. This limits the work of the High School of Commerce to four hours daily and necessitates the use of artificial light during a part of the session.

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The School Committee has repeatedly called attention to the imperative need of a separate building for this school. Its preference is for a site on a quiet street in close proximity to the Central High School. Proximity to the public library, the science building, and the museum should also be considered. The high schools of Springfield serve the entire city and hence central locations have been wisely regarded as necessary. Such a location is plainly essential in the case of the High School of Commerce, since many students of this school are employed in down-town offices during a part of each day.

The steady growth of this institution, in spite of the unfavorable conditions under which its work is done, is substantial evidence of the popular demand for the school. The number of pupils enrolled one year ago was 409. The present enrollment is 442, and 74 pupils now in the grammar schools have indicated their intention to enter the school in February. This will make the total enrollment for the school year 516.

The business men of the city are showing their appreciation of the work of the school by frequent requests for its graduates, and not a week goes by without several calls from these business men. If the school were twice its present size, it would not graduate enough pupils to supply this demand. The graduates of the school are not obliged to undergo the ordeal of college entrance examinations, but they must face a harder test, as they pass out to take positions in the business world, and the success of the school must be measured by the manner in which they fill these positions. The increasing demand for the graduates of this school surely indicates that it has been successful in its work.

Some of the boys and girls of Springfield are deprived of the opportunity to secure adequate preparation for entering upon commercial pursuits, because they cannot attend school in the afternoon, and the pupils have not the same opportunity as that insured to other high school pupils, because of the

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unfavorable conditions under which they are obliged to do their work. Unquestionably the efficiency of the school is not, and cannot be, at its best, under existing conditions. The school needs, just as much as either of the other high schools, a building of its own with an equipment suited to its special work. The School Committee urges, therefore, that there be no unnecessary delay in providing a central site for this school, and in proceeding with the work of construction.

THE TECHNICAL HIGH SCHOOL.

The present enrollment of the Technical High School is 464 boys and 193 girls, a total increase of 90 over the enrollment at the same time last year. There has been a steady annual increase in the attendance of boys from the first, and now the attendance of girls is increasing at a very rapid rate. It is estimated that the enrollment for 1912 will be over 750. Since 800 is the practical working capacity of the building, if the increase in attendance should continue at the same rate (as it doubtless will), the building will be uncomfortably crowded by another year, so that it is none too soon for the city to consider what provisions are to be made for the accommodation of from 800 to 1,000 Technical High School pupils in the near future. The need for a new High School of Commerce is, of course, more pressing at present, but the prospective needs of this school follow closely. It would seem to be wise economy for the city to secure as soon as possible the most available land for an extension to this building.

From an investigation that has been carried on, it has been ascertained that many pupils entered the Technical High School because they were attracted not so much by the book work offered, as by the exercises of the shops and drawing rooms, but that they developed within a comparatively short time a strong interest in the academic studies. Some of them, indeed, who, when they entered, had no thought of preparing

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for any higher school, have had their eyes opened to the advantages of further technical or college training. In deciding to prepare for higher training, they have not necessarily lost their desire for the useful, but they have been led to defer the period of special training. The desire to prepare for some practical calling appears to have induced 74 per cent. of the present enrollment of the school, to enroll here. But in so far as this may be called a vocational purpose, it was mainly a very general one, for not more than 12 per cent. had a specific vocation in view. It thus appears that the membership of the school is mainly based upon a broadly educational or cultural, though practical, aim; and it would seem that the purpose of the students, or of their parents, is in virtual agreement with the principles upon which the school was founded and is being conducted.

THE VOCATIONAL SCHOOL.

Until September, 1911, the Vocational School had been housed in the Technical High School building. This arrangement proved unsatisfactory, both to the Technical High School and the Vocational School, by reason of the fact that the equipment was designed to meet the needs of the Technical High School alone, and was quite insufficient for the two schools. Furthermore, the aims of the schools are so different that they cannot well work under the same conditions, or with an identical equipment. In June, 1911, the Board decided to take advantage of the aid offered by the State to such vocational schools as should meet its conditions in the matter of administration, teaching force, and housing. Accordingly, quarters were secured in a building devoted to manufacturing and located in the heart of the city, and on September 5, 1911, the school began operations under factory conditions. The teachers are all men of education and practical experience in their several trades. Under the new conditions the member-

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ship of the school has greatly increased and there has been a marked advance in the character and spirit of the work.

THE EVENING SCHOOL OF TRADES.

The Evening School of Trades has been carried on during the past year without any material changes in the character of the instruction or administration. There has been no increase in the attendance, and the school seems to have reached its normal size under the present conditions, for the facilities offered in the trade school depend upon the shops and equipment required for the Technical High School. Excepting in the case of plumbing, which is not taught in the day school, it has been the policy not to purchase equipment to meet the needs of the trade school only.

A change in some of the incidental fees was recently authorized by the Board. The fee in the class in applied science was reduced from $4 to $2.50, and for the course in cooking from $5 for two nights a week, and $3 for one night a week, to $3.50 for both the two-nights and the one-night a week courses. It is estimated that the new incidental fees are ample to cover the cost of materials, for which purpose the charge is made. The tuition for non-residents was made $10 in all classes for women.

The attendance records for the past six years reveal the fact that a large number of Springfield mechanics have profited by attendance at this school. The total registration for that period has been 2,684, and there have been registered during that time 1,730 different people. Of these about 1,250 have attended one season only, 335 two seasons, 120 three seasons, 25 four seasons, and 15 five seasons or more. The considerable number that have returned for a second or third season speaks well for the appreciation of its value on the part of the members. The fact that during the season of 1910–1911, 15 men from neighboring towns gladly paid the tuition of $15, and that some

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of them have done this for several years in succession, is further evidence of the appreciation of the value of the work. The percentage of attendance is unusually high for an evening school. For the past season it was 82, and every season has shown the same high percentage of attendance.

Unquestionably, one great fact to which the success of this school is to be attributed is found in the character of the instruction given. All the teachers are thorough masters of their subjects. The shop teachers have all served apprenticeships to their trades and have had many years' experience in the various departments of the trades which they teach.

ATHLETICS.

One of the new features in this department is the development of rowing on the river. The High School Athletic Association owns its own boathouse now, and has it thoroughly equipped. The aim of the department of physical training is to give the boys of Springfield an opportunity, through rowing, to benefit by the fine facilities offered to develop this most excellent form of exercise. During September and October eight crews of boys were entered for training and were given practice in rowing twice each week. The spring rowing opens March 1 and continues through June.

The boys, through the High School Athletic Association, raise all funds to equip and maintain the following sports: football, baseball, basketball, track athletics, rowing, hockey, and soccer-football. These funds are raised mainly through the sale of season tickets and gate receipts from the home games. Last year the Athletic Association accumulated $1,350 and spent $1,200. The policy of administration adopted in handling the athletics in our high schools is that of student managers, with faculty control.

One of the features of last year's work in the grade school athletics, as conducted under the auspices of the Public School

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Athletic League, was the field day, June 3, at which there were over 500 entries. The preparations for the meet next year are now under way, and with the coming of spring each school will be supplied with an athletic instructor from the Y. M. C. A. Training School, at no cost to the city except car fares for these men. Springfield is fortunate in being able to call on these men as directors of athletics and coaches of baseball and soccer-football, the three competitive forms of athletics prescribed for our grade schools.

CLEANLINESS OF SCHOOL BUILDINGS.

One step toward better hygienic conditions in the school buildings throughout the city is already obvious; not merely the stirring up of dirt and dust, but its removal, is essential in conserving the health of pupils and teachers. The vacuum cleaning system accomplishes this result, and no effort should be spared to secure the installation of this device in every building not already supplied with it. It goes without saying that no new building should be constructed without it. We have discarded the common drinking cup and the unsanitary slate for written work, and we have medical inspection for the detection and prevention of communicable diseases, yet we permit the most potent cause of the spread of disease to pollute the air of every schoolroom,—namely, the disease-breeding germ, wafted about in the dust of the schoolroom. Not only should vacuum cleaners be installed, but they should be used daily in the thorough cleaning of every room and corridor in which the children gather.

RESIGNATION OF SUPERINTENDENT GORDY.

On the 26th of May, 1911, Mr. Wilbur F. Gordy tendered to the School Board his resignation as Superintendent of Schools. In retiring, Mr. Gordy indicated to the Board in the

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following terms the reasons for his withdrawal from the office that he had so acceptably filled for a period of seven years:—

"The time has come when I feel that I can no longer put aside some important work, which is both literary and educational, and which strongly appeals to me because of its intimate bearing upon a few of the great social and ethical movements of our day. To do this work as it should be done, it will be necessary for me to free myself, at least for a time, from the details involved in an administrative and executive position. I therefore wish to resign the superintendency of schools in this city, and request that this resignation be allowed to go into effect on the first day of next September."

After accepting the resignation, the following resolutions were offered by a committee consisting of Dr. Bennitt, Mr. James, and Dr. Seerley, and these resolutions were adopted by a unanimous vote of the Board:—

"The School Board of Springfield enters the following memorandum upon its minutes of August 25, 1911:—

"To-night Mr. Wilbur F. Gordy terminates his official relations with this board as superintendent of schools. He has served in that capacity for seven years. During this time only harmony has existed and we have worked together happily and enthusiastically for the success of our schools.

"These seven years have witnessed many changes. The Technical High School has been moved from rented quarters into the new fireproof Technical High School building, and its enrollment has grown from 172 pupils in 1904 to 700 pupils in February, 1911. The household arts department for girls has been organized and has succeeded beyond our expectations. In the evening school of trades, classes in domestic science, dressmaking, and household arts have been added. Work in applied arts has been greatly developed. A vocational school has been organized and has been in successful operation for two years. Important advances have been made in this school, only recently, in the adopting of an entirely new policy. The commercial department of the high schools has been organized into a separate school known as the High School of Commerce.

"The courses of study for the high schools have been revised and brought up to date. The courses of study for the elemen-

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tary schools have been revised and a new course of study in history issued. Manual training in the elementary schools has been extended and a course in hand work for primary schools put into operation. Physical training has been made an integral part of the school curriculum and includes rowing, track and field sports as well as formal gymnastics. Medical inspection has become a requirement of the state and is supervised by the board of health. The business administration of the school department has been conspicuously effective, and is now upon a thoroughly sound and economic basis. Teachers' salaries have been increased about 20 per cent. Because of this rise in salaries and the great care exercised in the selection of teachers, the teaching force has been strengthened. But this extension and expansion in a practical direction has been marked by a no less definite growth along cultural lines. Finally, during these seven years the capacity of the schools has been increased by the addition of more than 110 schoolrooms, while the number of teachers employed has increased by 122, the number now serving being 491.

"Throughout all this change, Mr. Gordy has stood constantly and steadfastly for the highest educational ideals. His fine optimistic spirit has been contagious, and his splendid physique an inspiration; his kindly spirit has made him a friend, even to the school boy or girl on the street; his integrity has created confidence and his faithfulness has been a lesson to all.

"We deeply regret the passing of Superintendent Gordy from active school administration to which he has given so much of his life. We congratulate Springfield in having had the privilege of seven years of that service and we shall follow him in his literary and not less useful educational career with sincere interest."

THE NEW SUPERINTENDENT.

Realizing the extreme importance of the office made vacant by Mr. Gordy's resignation, the Board devoted itself for a period of two months to an investigation of the qualifications of many leading educators, with a view to securing the services of the best man available. This careful survey of the field resulted on July 21, in the unanimous election of Mr. James

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H. Van Sickle, of Baltimore, Maryland, to the office of Superintendent of Schools.

Mr. Van Sickle is an educator of national reputation, who combines with a broad knowledge of educational principles and methods, a practical skill in administration, that is the outgrowth of many years' experience as a school superintendent. Mr. Van Sickle has been most cordially welcomed by the teaching force, and the Board is satisfied that the high reputation of the schools of Springfield will be fully maintained under the new superintendent.

THE RETIREMENT OF DR. SEERLEY.

The retirement of Dr. Frank N. Seerley, after fifteen years of service as a member of the School Board, is deeply regretted by this body. Dr. Seerley has been a member of the Technical High School sub-committee since 1900, and chairman since 1905, and has fostered the growth of this school by every means in his power, devoting his time unsparingly to the study of its special needs and problems. The retiring member has also rendered most valuable service to the city by his intelligent advocacy of organized physical training throughout all the schools, and in addition he has for fifteen years given careful study and attention to all phases of school work. Principals and teachers will miss his hearty and sympathetic response to their appeals for aid and suggestion, and the Board loses by his retirement one of its most efficient and devoted members.

Respectfully submitted for the Board,

IRVING S. PULCIFER.

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ANNUAL REPORT

OF THE

SUPERINTENDENT OF SCHOOLS.

To the School Board:—

In accordance with the requirements of your Rules and Regulations, I have the honor to present to you my report of the schools for the current year.

THE HIGH SCHOOLS.

The aims and purposes of the high schools of the city and of the Evening School of Trades have been fully set forth in previous reports, notably in the report for the year 1910. It seems unnecessary, therefore, at this time to add anything to what has already been said on the theory of the work done in them. The high standard of accomplishment characteristic of these schools has been well maintained throughout the year, and a midyear class numbering 43 will be ready for graduation in January.

THE CENTRAL HIGH SCHOOL.

There has been no important change in the curriculum of the school during the past year. On account of the growth of the school, and to provide for the new classes made necessary by the admission of pupils last February, two teachers were added to the force, one in the English department, the other in the classical department. The head of the English department

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resigned during the year, and the position has not yet been filled. Inasmuch as it includes more teachers than any other department, and inasmuch as all the pupils in the school are required to take English during their entire course, this being the only subject in which there is a like requirement, the English department stands upon a somewhat different basis from the other departments of the school. In view of its importance, therefore, it should have at its head a man whose training, experience, and personality warrant placing him in a position of such responsibility.

Increased interest has been shown in the work of the free-hand drawing and music departments. This is due in part to a better understanding by the pupils of the aims and methods of the teachers in these departments and in part to increased recognition of these subjects as offering ways in which a portion of the diploma requirement can be met.

The increased interest in music in this school is evidenced by the recent formation of a girls' glee club, which has begun its work enthusiastically and bids fair to be a valuable addition to the school activities.

The development of the high school chorus in the past few years is interesting. It now numbers about 250 and the work is entirely elective.

At the opening of the present school year the number of periods a day in this school was changed from five to six. The reasons for this change were to enable a teacher to devote to actual instruction the full complement of five periods a day and still have some free time in which to meet pupils individually and do other necessary work; to give pupils an opportunity to take the full programs required by many colleges for admission and still have free time in school for consultation with teachers, library work, preparation of lessons, etc.; and by increasing the number of divisions made possible by this change to decrease the size of some of the classes,

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which have of late been larger than this school has had in the past and too large for effective work, without at the same time increasing the number of teachers.

The requirement for graduation is now stated in terms of credits, a credit being one period of work a week for one semester. The total requirement for a diploma is 160 credits, of which 30 may be made from unprepared work, if desirable. Considered in connection with the six period day and the possibility of counting physical training and other unprepared work directly toward this total, the requirement for a diploma is just what it has been before. This has been found a much more convenient method of reckoning, particularly since promotions have been made twice as often as formerly. It is now possible for an able pupil, if he shapes his work early enough to this end, to complete the high school course in three and a half years. There are not many, of course, for whom this is advisable or who are allowed to attempt it, but the flexibility of the present system gives an opportunity to take care of the more brilliant as well as the more backward pupils, and there are now a small number of students in the second year class who have already begun to plan their programs with a view to graduation in three and a half years.

THE TECHNICAL HIGH SCHOOL.

With the opening of the present school year in September, certain modifications of the courses of instruction authorized by the Board have been put in force. These changes appear in the printed course of study. A few changes have been made in the teaching force affecting the work in modern languages, mathematics, in English, and in drawing. These changes have for the most part resulted in more efficient teaching.

Statistical studies are made from time to time in order to keep the work of the school as closely as possible in touch with the needs of the community and to test the value of its work

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by the success of those who have taken its courses. Such an investigation has been recently made, based upon the enrollment of the last five years. In order to determine the economic status of families sending their children to this school, a study was made of the occupations from which these families derived their support, with the following result:—

6 per cent of the families represented derived their support from agricultural pursuits,
11 per cent from professional pursuits,
4 per cent from domestic pursuits,
40 per cent from trade and transportation,
29 per cent from manufacturing and mechanical,
8 per cent from civil service,
2 per cent reported no occupation.

The reported occupations of the graduates were divided as follows:—

19 per cent industrial foremen,
3 per cent machinists,
21 per cent draftsmen,
23 per cent clerks,
9 per cent teachers,
9 per cent civil engineers,
4 per cent engaged in electrical work,
6 per cent in mechanical engineering,
6 per cent in miscellaneous occupations.

Taking into consideration the character of the work done in these several capacities, it is clear that this school is in large measure fulfilling its functions of training for industrial leadership, for it is well known in the school that several of those who reported themselves as draftsmen, and some of those in other kinds of work, are holding positions of responsibility.

Perhaps the most suggestive statistics, however, as showing the value of the courses given in this school, are found in the

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reports on the salaries of graduates. The average initial salary of all graduates, reduced to the weekly basis, is $9.71. The present salary returns, averaged separately for the nine classes that have been graduated from this school and reduced to the weekly basis, were as follows:—

Class of 1911, ...	$11 06
Class of 1910, ...	12 14
Class of 1909, ...	17 28
Class of 1908, ...	17 03
Class of 1907, ...	19 75
Class of 1906, ...	22 46
Class of 1905, ...	26 25
Class of 1904, ...	22 17
Class of 1903, ...	27 39

It will be noticed that the initial pay received by the last graduating class ($11.06) is somewhat larger than the average initial salary ($9.71), and also that there is a steady increase to a comparatively high average after a brief experience. The highest weekly salary reported was $40.75, but several who did not report are known to be receiving much higher salaries. It should be stated also that these reports concern only the boys, as no statistics are yet available for the girls, and, furthermore, that the report includes boys who have taken the college preparatory as well as those who have taken the technical courses. For example, one young man who graduated in the college preparatory course, and therefore did not receive the maximum course in mechanical training, secured, and is successfully holding to-day, a position as machinist at $3.25 per day, and he received no instruction for this position other than that given in this school. His case, not by any means an isolated one, illustrates the value of the combination and correlation of strong theoretical work with a minimum of practice in the case of boys who have the mental capacity to do really strong technical work.

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MANUAL TRAINING IN THE ELEMENTARY SCHOOLS.

It has long been conceded that no one kind of hand work in the schools is suitable for all cities, but the problem has been to determine just what type of work is adapted to a particular city. As yet no invariable basis has been devised for solving this problem. As a general proposition, the hand work in the school should reflect in some way the city itself. If a city is entirely residential, without much business or industry, as is often the case with suburban districts of large cities, the home may be made the central idea for the school hand work. In this case, articles for the home, household models, decorative objects, and a study of house construction, would properly form a basis for subject matter in the manual training course. If a city is industrial in type, then this fact should be taken into account in planning the work. Springfield is a city of diversified industries; a list of 352 distinct lines of manufacture, secured by the Board of Trade, is by no means complete. Besides being an industrial center, Springfield is a railroad center, and its expansion in residential buildings and its increase in factory buildings make the building trades an important feature. The manual training department is taking these facts into account in planning the hand-work courses for the grades, and a course of industrial studies designed to acquaint the pupils with the important activities that are going on in this city has been begun. In making these studies, the pupils construct projects that illustrate the chief features of the industry they are studying. For the purpose of preparing these constructive studies, the manual training teachers meet regularly with the supervisor for the definite purpose of investigating and experimenting in various suggested lines to determine what are truly educational forms of hand work for the different grades in our schools. Among the industries that are being studied are house construction, concrete work, the telegraph, railroad

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transportation, bridges, printing and bookbinding, copper work, leather work, paper manufacture, and textiles. Also special studies are being made in teaching-method as applied to this work, and the application of the principles of scientific management to the manual training shop.

Some printing equipment has been installed in the manual training shops for the eighth grades. This is a new line of work in the Springfield schools. The work as planned includes typesetting, press work, and the making of illustrations by the zinc etching process. A fair amount of correlation is secured with the English work and the drawing.

Each grade this year has some project planned that grows out of the regular class work, which is designed or drawn in the art department and is produced in the shop. A new course has just been outlined that includes the primary grades in the plan of correlating the class work, art work, and manual training. This course is described in the report of the Assistant Superintendent.

THE VOCATIONAL SCHOOL.

This school is designed for boys over fourteen years of age, enrolled in the upper grammar grades.

Organization.

The Vocational School opened for its third year in September, 1911, under a new organization. On the administrative side a new element was introduced by the acceptance of state aid and supervision. The state has entered into partnership with the city in maintaining the school. Teachers, courses of study, and the general policy of conducting the school must meet the approval of the State Board of Education. Half of the maintenance expenses are refunded by the state. The local School Board is the administrative head of the school, as before, but

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in addition it is required by the state that an advisory board, composed of men engaged in the industries that are represented in the school, be appointed to confer and advise with the School Board, the principal, and teachers of the school.

State approval required that the school be installed in quarters of its own. Accordingly, in September the school was moved to rented quarters in a factory building at 36 Taylor street, affording 8,000 square feet of floor space. Half of that space is used for shops, and half for drawing and class-room work. In these separate quarters it is possible to conduct the school on a very different plan from that previously found necessary in the Technical High School. Instead of giving each boy a half-day of shop work and a half-day of class work in succession, the work is carried on in what is called the "job" or "project" plan. The boys of each group are given one day a week of special class-room work that is related to the shop work. For the remainder of the week their work is confined entirely to the "job." Each job requires an assigned amount of estimating, drawing, writing of specifications, shop notes, and cost records, as well as shop work. Each step is taken up in order and is carried through until it is finished. Instead of dividing the day up into periods for each type of work, as is true in the other schools, the boy continues at each required step until it is finished. This is typical of the conditions the boys will meet in the industries, where they must continue all day without a very great change in the type of activity. Before a boy can go to the shop to execute the job, he must complete all written work, drawing, and estimating. This requirement is an incentive for serious application, and gives conditions so real that this part of the school work has shown very great improvement over results under the former half-day plan.

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Shops.

The equipment of the woodworking shop was moved from the Technical High School building. The boys installed the plant and built the necessary benches and a tool room.

The machine equipment consists of new and second-hand machines. As only the sum of $3,600 was available, close buying was necessary in order to secure the requisite number of machines. An additional appropriation is needed for bringing this equipment up to the demands made upon it. The machine department is much larger than the wood department, and, owing to the large number of metal working industries in Springfield, it probably always will be larger.

All of the shop work is of the industrial type. No exercises have been used. The work has consisted of orders for the shop equipment or for other school departments. The aim has been to give present-day industrial practice.

Teachers.

Only men teachers are employed in the Vocational School. The shop work is in charge of men who were engaged in the industries until they came to this school. Two assistant shop teachers who have had both industrial experience and professional training take charge of the drawing, estimating, and other individual written work. The class room is in charge of an experienced teacher who came to us from high school work. Thus the boys get their instruction in formal work from a man who is experienced as a class teacher; their work in specifications, drawing, and estimating, from men who in training are midway between the shop man and the class teacher; their shop instruction from a thoroughly practical mechanic.

MEASURING RESULTS OF SCHOOL WORK.

In mercantile business, taking account of stock serves a useful purpose, but an inventory does not show all of the

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resources of the concern. There is, for instance, that asset called "the good will" which an inventory cannot show. In teaching and school management it has commonly been held that no concrete showing of results can be made; that since the results are largely spiritual, appearing in after years in terms of character and power, there is no definite way of estimating the work of a school till after the records of a generation of its pupils have been tested by the criterion of success or failure in adult life. Doubtless some succeed because of their schooling, but some succeed in spite of it, so this criterion proves inadequate. It must be conceded, now as always, that the highest values of schooling are spiritual and not to be measured by a yardstick, yet society has set up a course of study which it thinks school children should follow and, as far as may be, master. The progress of children through the course of study can be measured and it is coming to be thought worth while to apply the inventory method to test this phase of the work a school or a school system is doing.

ACCELERATION AND RETARDATION IN THE GRADES.

Our compulsory attendance laws bring into the schools children of widely varying native mental endowment and retain them in school until they reach the age of fourteen years, when, if they can successfully meet the simple educational test required by law, they may cease attending school and enter upon employment. In Springfield, as in most other cities, the course of study is uniform for all pupils from the first grade to the high school. Through differences in age of entering, regularity of attendance, ability, and industry, the children of every school grade differ widely in age. In our city, omitting isolated cases, and dealing with no instances embracing less than five individuals of the grade, the range of

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ages in first grade is from 5 years to 12 years; in second grade from 6 years to 12 years; in third grade from 6 years to 14 years; in fourth grade from 7 years to 15 years; in fifth grade from 8 years to 14 years; in sixth grade from 9 years to 15 years; in seventh grade from 10 years to 16 years; in eighth grade from 11 years to 16 years; in ninth grade from 12 years to 17 years. The difference increases slightly from the first grade to the fourth grade, and from that grade to the ninth there is a falling off owing in part to the dropping out of school at the end of the compulsory period of many of those who are very much over-age for the grade they are then in. Children who are above the age for the grade they are in are said to be "retarded." They are misfits and require special treatment of some sort. The amount of retardation in any given school system is necessarily a matter of deep concern to the school authorities. By means of accurate knowledge of the amount of retardation in a given grade, they are able to judge of the appropriateness of the course of study for that grade as a whole, and of any special modifications in course of study or class organization that may be needed to meet the needs of the retarded pupils. The standard commonly agreed upon is one which rates as "above normal age" all children in the first grade who are eight years of age or older, those in the second grade who are nine years of age or older, and so on for each of the following grades. In the past few years this criterion has been applied to the age and grade figures of several hundred cities, with the result that in the average city the proportion of children found to be retarded is more than one third of the entire school membership. The following table shows the amount of retardation in the schools of Springfield on the age and grade basis:—

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TABLE 1.

DISTRIBUTION OF PUPILS BY AGES AND GRADES IN SEPTEMBER, 1911.

AGES.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Totals.
Under 5 years.	19									19
5 years.	388	2								390
6 years.	789	215	5							1009
7 years.	377	660	168	4						1209
8 years.	93	414	498	166	5					1176
9 years.	40	165	381	447	154	13				1200
10 years.	8	53	161	343	418	121	11	1		1116
11 years.	9	17	77	212	350	326	158	16		1165
12 years.	5	11	52	99	195	308	327	132	17	1146
13 years.	2	2	24	49	120	197	320	318	134	1166
14 years.	1	3	6	20	49	82	171	284	248	864
15 years.		1		5	8	25	61	132	215	447
16 years.			1	2		3	10	35	81	132
17 years.						1		8	20	29
18 years.					1				1	2
Over 18 years.										
Totals.	1731	1543	1373	1347	1300	1076	1058	926	716	11070

(This table does not include pupils in grammar preparatory, special preparatory, or vocational schools.)

The figures below the heavy broken line represent children who are classed as "retarded."

The "age and grade" criterion for judging retardation is not altogether reliable, for in such a table children who enter late and have made regular progress appear as retarded along with those who have been held back to repeat one or more grades. A more satisfactory arrangement of data for the study of retardation has been suggested by Dr. Leonard P. Ayres of the Russell Sage Foundation. This arrangement takes into account both "age" and "years in school" as well as "grade." By the use of a table made on this basis, the

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children are divided into young, normal, and over-age groups, on the basis of age, and again into rapid, normal, and slow groups, on the basis of the number of years taken to reach present grade position.

PROGRESS AND AGE STUDY.

On the week ending December 15, 1911, an inquiry was made throughout the elementary schools of the city to determine the age and years in school of children in all grades. Some difficulty was experienced in securing information as to the number of years in school since there is not in use at present an individual record card which goes from school to school with the pupil, by means of which his entire school history can be seen at a glance even if he has been transferred once or twice. However, the primary schools were able to furnish exact data from their records, and the teachers in the grammar schools were able, with the assistance of the pupils and their parents, to secure data which are believed to be very nearly correct. Therefore, while the tables which follow must be understood as approximations, they are such close approximations that they will serve to show in a fairly reliable way the state of the elementary grades at this time as to normal progress, retardation, and acceleration. A single grade, the fifth, has been selected for analysis.

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TABLE 2.

AGE AND TIME IN SCHOOL, FIFTH GRADE, SPRINGFIELD, DECEMBER, 1911.

Years in School.	AGES.													Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1							1								1
2				2	1	1	1	2	2						9
3				6	38	25	9		1	1					80
4					162	200	63	12	10	3					450
5					17	178	131	47	14	2					389
6					1	11	120	60	29	3					224
7						1	3	46	29	8	1		1		88
8							1	4	17	4	1				28
9										4	1				5
10										1					1
11															
12															
13															
Total				8	219	416	329	171	102	26	3		1		1275

This table shows that in December there were 1,275 children in the fifth grades of Springfield. By referring to the top row of figures, it will be seen that these children varied in age from 8 to 17 years, and reference to the first column shows that they had been in school from 1 to 10 years. According to the commonly accepted standard, the age of 11 years is the normal age for children of the fifth grade; and thus, by drawing through the table the two heavy vertical lines, we divide the figures into three groups, leaving on the left all the children below normal age, and on the right those above normal age. When the figures of the three groups are added, we have the following results:—

Below normal age,	643
Normal age,	329
Above normal age,	303

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In a similar way, divisions into progress groups are readily made of children in the fifth grade who have been five years in school and have made normal progress; and these we separate from the rest by two heavy horizontal lines. Those remaining above the lines have made rapid progress, while those below have made slow progress. Adding the figures for these groups, we have the following:—

Rapid progress, ...	540
Normal progress, ...	389
Slow progress, ...	346

We have noted that 303 pupils are over-age and that 346 have made slow progress, but we see that the terms "slow" and "over-age" will not invariably refer to the same pupils. Many of the over-age pupils are not slow, and many slow pupils are not over-age. Each age group is divided into three progress groups, and each progress group into three age groups. We find 13 pupils who are young but slow, 31 who are over-age but rapid, and other combinations between. If we add the figures in each division, we have a new table in which our 1,275 children are distributed by age and progress groups as follows:—

TABLE 3.

AGE AND PROGRESS GROUPS OF FIFTH GRADE PUPILS IN SPRINGFIELD, DECEMBER, 1911.

	Young.	Normal.	Over-age.	Total.
Rapid, ...	435	74	31	540
Normal, ...	195	131	63	389
Slow, ...	13	124	209	346
Total, . . .	643	329	303	1,275

Reducing the numbers in the above table to a percentage basis, we have the following:—

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TABLE 4.

DATA OF TABLE 3 CHANGED TO A PERCENTAGE BASIS.

	Per cent Young.	Per cent Normal.	Per cent Over-age.	Total.
Per cent rapid, . .	34	6	2	42
Per cent normal, . .	16	10	5	31
Per cent slow, . .	1	10	16	27
Total, . . .	51	26	23	100

By reference to Tables 3 and 4, we see that 435 of these fifth grade pupils, or 34 per cent, are not only under-age for the grade, but they have progressed at more than normal speed. They are the exceptionally capable pupils of the grade. At the other extreme we find 209 children, or 16 per cent of all in the grade, who need special attention because they are both over-age and slow. Feeble-minded children rarely advance beyond the second grade, hence we know that none of these are feeble-minded, but among their number will be found many who will be little profited by the ordinary literary curriculum; 110 of them are already 12 years old, and 75 are 13 years old. A majority of them will in all probability drop out of school as soon as they reach the age of 14 unless, prior to that time, we can introduce some new element of interest that will make a strong appeal, for example, some activity looking toward a vocation.

Referring again to the over-age column, we notice that 31 pupils, 2 per cent, are over-age, but they have reached their present position in less than the usual time, while 63 of them, also over-age, have required the full five years to reach their present grade position. Unless by limiting the required work of these over-age pupils to the essentials, or by some administrative arrangement involving special grouping with relatively small numbers in a class, we can in the one case maintain, and in the other case bring about, accelerated progress, there is little

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likelihood that any large number will remain in school to complete the ninth grade, much less take a high school course; for four years hence their ages will range from 16 to 18 years. The 124 pupils who are of normal age but slow are also subjects for special attention, for they have repeated from one to three grades or have failed to secure from two to six half-yearly promotions, and are in danger of acquiring the fatal habit of failure, if they have not already acquired it.

The highly important duty of placing each child where it is best for him to be devolves upon the principal of a school. To analyze the membership of each class and of the whole school in some such way as this will aid him in organizing his pupils into homogeneous groups of the proper size for the most effective work. For instance, classes composed of pupils such as are found among the 435 in the upper left-hand corner of our first diagram may be taught in somewhat larger classes than those of the type found among the 209 in the lower left-hand corner of the diagram, for much of the instruction the latter receive must be individual in character.

Each principal has retained for his own use a set of cards which is the exact duplicate of the set sent to the superintendent's office. While an analysis of the conditions of a single grade for the entire city is suggestive, the highest value of the progress and age study will be realized only as each principal uses the data at his command to improve the chances of the children under his care for steady progress through the course of study by as thoughtful grouping as circumstances will permit. The Springfield schools have held good rank when comparisons have been made with other cities in the matter of retardation, and there is no reason to be ashamed of the showing in the progress and age study made this month.

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TABLE 5.

SCHOOL CHILDREN OF SPRINGFIELD BY YOUNG, NORMAL, AND OLD, AND BY RAPID, NORMAL, AND SLOW GROUPS, ALL GRADES, DECEMBER, 1911.

	Young.	Normal.	Old.	Total.
Rapid,	3,932	650	255	4,837
Normal,	2,433	1,352	578	4,363
Slow,	102	636	1,152	1,890
Total,	6,467	2,638	1,985	11,090

TABLE 6.

PERCENTAGE FIGURES MADE FROM TABLE 6, SHOWING CONDITIONS IN SPRINGFIELD, 1911.

	Young.	Normal.	Old.	Total.
Rapid,	35	6	2	43
Normal,	22	12	5	39
Slow,	1	6	11	18
Total,	58	24	18	100

Reference to the following table copied from the American School Board Journal for December, 1911, based upon a study made by Dr. Leonard P. Ayres of the enrollment in 29 cities will give evidence of the relatively good record of the Springfield schools.

TABLE 7.

SCHOOL CHILDREN BY YOUNG, NORMAL, AND OLD, AND BY RAPID, NORMAL, AND SLOW GROUPS. PERCENTAGE FIGURES SHOWING AVERAGE CONDITIONS FOR 29 CITIES.

	Young.	Normal.	Old.	Total.
Rapid,	6	3	2	11
Normal,	21	21	10	52
Slow,	2	10	25	37
Total,	29	34	37	100

It will be noticed that in Springfield 35 per cent of the children are "young" and have made rapid progress, as compared with 6 per cent for 29 cities in Table 7; that only 11 per

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cent are "over-age" and "slow" in Springfield as compared with 25 per cent in the 29 cities of Table 7. It should be said, however, that the data from the 29 cities were collected just before promotion time, while the data for our city were collected in the fourth month of the school year. The comparison is not, therefore, exact. The conditions favor Springfield. However, it is unlikely that the lapse of another half-year would reduce the percentage of those appearing in our Table 6 as "young" and "rapid" from 35 to 6, or raise the percentage of those appearing in our Table 6 as "old" and "slow" from 11 to 25.

After making all allowances that the difference in the dates of the two studies calls for, the results appear to place Springfield considerably ahead. Our kindergartens aid greatly in producing this result. They fit children to take up first grade work quite early, generally before they are six years of age, often at five. This, too, should be said: When the commonly accepted age standard based on eight grades is applied to a nine grade system, we have children 15 years of age classed as of normal age when in an eight grade system 14 is the highest normal age below the high school.

An analysis of each of these tables, similar to that given in connection with grade V, might be made if space permitted, but instead of this, it seems best to comment upon the way in which the progress of special groups of children is safeguarded in our schools.

PROVISION FOR EXCEPTIONALLY CAPABLE CHILDREN.

In the Central High School, as was said earlier in this report, exceptionally capable pupils have an opportunity, under the system of promotion by subject in use there, to complete the course in less than four years.

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In the elementary schools it is possible to make provision for the most capable pupils by means of special promotion. The half-year interval between classes facilitates individual advancement to a certain extent, but apparently not quite to the extent hoped and expected. During the year 1910, in an enrollment of 11,070 in the grades, 696 irregular promotions were made, a number amounting to 6 per cent of the whole number of pupils. It is believed that this record, though creditable, will be considerably improved during the current year. With a course of study covering nine years, it seems highly important to urge this means of accelerating the progress of capable pupils so that they may be ready to enter high school at or about the age of fourteen. With the children of our eighth and ninth grades grouped as they are in six buildings, and instruction given departmentally, the system of promotion by subjects now in vogue in the high schools might to advantage be carried into these grades; and any work in a high school subject accomplished by a ninth grade pupil might be credited toward the high school diploma. The elementary course of study should be planned to cover eight years instead of nine, as is customary in most cities, or else some provision should be made whereby exceptionally capable pupils may begin one or more lines of high school work, for example, Latin, a modern language, or algebra, a year or two earlier than is now possible. In city systems of eight grades, this is done with good results. Of the 716 pupils in our ninth grade, 274, or 38 per cent, are 15 years of age, and 83, or 11 per cent, are 16 years of age. They will be 19 and 20, respectively, upon graduation from the high school, and 23 and 24 upon graduation from college, should they continue their educational career. Any administrative arrangement by means of which such pupils can save one or two of these valuable years is well worth our careful consideration.

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PROVISION FOR OVER-AGE AND SLOW PUPILS.

Over-age and slow pupils are quite well taken care of in our grammar preparatory classes, of which there are six, each enrolling from 18 to 25 pupils. We need to organize several more of these classes in order to deal impartially with schools in all sections of the city.

Few cities, if any, do better than Springfield in the attention given to mentally-defective children. The first requisite, a teacher with special training for the work, is fully met in Miss Frances E. Cheney, who for fourteen years has had charge of the special class at the Carew Street School. This class is maintained not only for children of retarded development but as an observation station where a child of questionable mentality is retained till his case can be thoroughly studied. The child of temporary mental retardation is returned to the grades. Many of the border-line cases of feeble-mindedness and the high-grade cases pass from the school to employment which is more or less regular, as the case may be, some to total self-support. Those who go from the class to the state school for the feeble-minded are removed from the community to which they are a menace, are themselves protected, and are taught to assist the state toward their own support in so far as they are capable. A detailed description of the work of this class will be found in the report of the Assistant Superintendent.

THE OPEN-AIR SCHOOL.

An open-air school for anemic children has been opened in a pavilion on the grounds of the Lincoln School on Chestnut street. By the arrangement under which the school is organized, the Association for the Prevention of Tuberculosis provides the building, the care, cots, blankets, and all necessities beyond the usual school appliances, and the School Board furnishes teachers and ordinary school supplies. The

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OPEN-AIR SCHOOL—EXTERIOR VIEW.
JANUARY 8, 1912. 9 O'CLOCK. TEMPERATURE 5°.

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OPEN-AIR SCHOOL—CALISTHENICS.
JANUARY 8, 1912. 9 O'CLOCK. TEMPERATURE 5°.

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OPEN-AIR SCHOOL—INTERIOR VIEW.
JANUARY 8, 1912. 9 O'CLOCK. TEMPERATURE 5°.

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City Property Committee has fitted up two rooms in the Lincoln School building, one as a rest room and the other as a combined kitchen and dining room. Since the school gathers its pupils from the entire city, it is managed as an independent plant responsible through the principal teacher directly to the Superintendent of Schools.

The school is not furnished with artificial heat, but heavy army blankets are provided for the protection of the children from the cold. These blankets, added to the ordinary warm winter clothing of the children, make it possible for even the most delicate child to work in comfort throughout the coldest days. The pupils do not return to their homes at noon, but remain in the school where, in a warm dining room, they are provided with a wholesome dinner of meat and vegetables. After dinner they rest or sleep for an hour on cots that are furnished with army blankets. In addition to the noon dinner, two light luncheons are provided, one in the morning and one at the close of school in the afternoon. These luncheons consist of cereal and milk, or hot soup or cocoa with bread and butter.

More than ordinary attention is given to the physical development of the pupils, and it is the universal experience of those who conduct such schools that, by reason of the favorable conditions under which they work, pupils are enabled to keep up with their various grades and to secure regular promotion. Children who are physically below par are thus to be given an opportunity to grow strong and hearty under ideal school conditions. No child who has tuberculosis in any contagious form, and no child suffering from any disease that may be communicated, is permitted to attend the school.

The daily routine is in accordance with the following program:—

Breakfast, ...	8.30- 8.55
Recitations, ...	8.55- 9.40
Physical exercises, ...	9.40- 9.45
Recitations, ...	9.45-10.20

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Recess and physical exercise, . .	10.20-10.40
Recitations, ...	10.40-11.30
Preparation for dinner, . . .	11.30-11.45
Dinner, ...	11.45-12.15
Rest and sleep, ...	12.15- 1.15
Play, ...	1.15- 1.30
Recitations, ...	1.30- 2.25
Recess and physical exercise, . .	2.25- 2.45
Recitations, ...	2.45- 3.30
Supper, ...	3.30- 3.45

THE OPEN-WINDOW SCHOOL.

On petition of 34 parents of children in the first grade of the Lincoln School, the School Board has permitted work in one class room to be conducted with open windows, thus affording to healthy, vigorous children the same opportunity to do their work and take their exercise in fresh, pure air that sickly children are said to find so beneficial to their health. A light luncheon of hot milk, paid for by the children, together with crackers furnished by the Mothers' Club of the Lincoln School, is served. This plan, while experimental here, is said to have passed beyond the experimental stage elsewhere, notably in Chicago, Boston, and Providence, but the School Board prefers at the present stage of this movement to let the responsibility rest with the parents. There can be no question that in open-window rooms the spread of diseases incident to childhood will be greatly lessened and that the deleterious effects upon the respiratory organs of breathing air from which the heating apparatus has extracted the moisture so necessary to health, will be diminished. If with these advantages it is found that children of open-air rooms are relatively free from colds, as is claimed where the open-window room plan has been tried, it will suggest that a considerable modification of our expensive and elaborate ventilating devices may be the next forward step in school improvement.

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CONCLUSION.

It has given me pleasure to know the teachers of Springfield and to observe the excellent work which they are doing in their schoolrooms. For many years these schools have been widely known as notably progressive and highly efficient. Such a reputation is not gained by chance. As one observes the instruction and management of children as carried on in the various class rooms, he is impressed with the fact that the teachers have been selected with discriminating care, that the supervision has been stimulating in character, and that the public appreciation of the merits of the school system as it has developed and as it exists at the present time is fully justified. With the continuation of the same hearty co-operation which has so far been accorded me by the teachers and supervising force and by your honorable body, my earnest efforts will be directed toward maintaining and if possible advancing the present high standard of work.

Respectfully submitted,

JAMES H. VAN SICKLE,

Superintendent of Schools.

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REPORT OF THE

Assistant Superintendent of Schools.

Superintendent James H. Van Sickle.

DEAR SIR:—Any report of the work of the past year in the elementary schools should make mention, first of all, of the active interest manifested by the teaching force in the recent developments in educational theory and practice. Owing largely to the change in economic conditions, many new problems are confronting the modern specialist in education. Some of the social problems under consideration are taxing the resources of our ablest educators, who must depend upon the skill and intelligence of the public school teacher for their solution, since the school is the only organized agency that exercises a definite influence upon every home in the commonwealth. Herein may be found a reason for our overcrowded curriculum. We attempt to teach many things because they will not otherwise be taught. We must become responsible for the conservation of the health of school children, or there will be a great and useless waste of human life; we must give a more practical turn to the work of the schools, or other nations will deny to us the commercial supremacy to which we lay claim; we must provide for instruction in household arts, because such instruction is not being given in the average home, and in order that we may do this and much beside, it is necessary to find shortcuts to the acquirement of the fundamental facts upon which much of knowledge is based. Hence the only effective teacher is the thinking teacher, and the alert attitude of mind evidenced by the members of our own teaching force

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with whom I am most closely associated is a definite indication of their fitness for the work in which they are engaged.

THE TRAINING OF THE SENSES.

One of the problems that has occupied the attention of the kindergarten and primary teachers this fall is the effect upon children of specific exercises for the training of the senses of touch, sight, and hearing. At one of the September teachers' meetings, mention was made of the experiments in the education of young children that are being tried in Italy by Maria Montesorri, a professor in the University of Rome. In Madame Montesorri's Houses of Childhood, infants four years of age, who have had the preliminary sense training, learn to write in six weeks, and at three years of age children are taught to read without any apparent strain to their nerves or health. The pupils in these schools are allowed great freedom of action, and are encouraged to work independently and of their own initiative. The much neglected sense of touch is given every opportunity for exercise, and special apparatus has been prepared for use by children who are blindfolded and who make a game of blindman's buff out of the placing of geometrical figures and the distinguishing of various textures. Much of the work is done out of doors in the beautiful enclosed gardens so common in Italy, and children write in the sand and on the pavements as well as upon the school blackboards. The experiment as reported in the magazines is full of interest to our teachers, many of whom have been trying out in their own schools this fall various modifications of the Montesorri plan. Our public school organization imposes certain restrictions with which we must reckon, but the trained kindergartner or primary teacher is awake to the possibility of adapting to local conditions some of the most valuable features of the plan. These teachers find much in the scheme that is in harmony with their own practice, and they have entered with

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zest upon an investigation of the new methods. We are, therefore, deeply indebted to Madame Montesorri, although we may question the wisdom of teaching children three and four years of age to read and write, when there is so much they need to know regarding the world about them before they begin to read the records of men or to write of what they have learned.

THE PHYSICAL DEVELOPMENT OF CHILDREN.

There is evident throughout the country a rapidly growing sentiment in favor of outdoor living, with a consequent tendency in the direction of cooler schoolrooms and dwelling houses. In a neighboring town, the school board has issued an order fixing the temperature of schoolrooms at 66° Fahrenheit. Air of this temperature extracts less moisture from the lungs than warmer air, and if sufficient clothing is worn, children will work more effectively and more comfortably in the cooler atmosphere.

The open-window school recently put into operation here is meeting with the approbation of parents, and there is already a demand for an extension of the plan.

Clean, light, airy schoolrooms make for good health, good morals, and clear thinking. School work performed in such surroundings, with ample provision for play and physical exercise, cannot injure the health of the normal child, and if parents will insure equally favorable home conditions, we may be able to make good, to a large extent, the loss that children suffer because of the restrictions of town and city life.

RHYTHMIC GAMES.

Exercise for the mere sake of physical development is apt to be dull and somewhat unprofitable, but exercise that is delightful and interesting in its nature stirs the blood and gives vigor to wearied bodies. The introduction of rhythmic

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games, or folk-dances, into the physical training program of practically every grade is, therefore, an advance in the right direction. In the kindergarten and first grade schools these games have long had a place, but the physical exercises in the grades above have, until within the last year or two, been almost wholly of a formal nature. Swedish gymnastics and other formal exercises have their place, and we are not yet ready to abandon them, but there was need in our schools of socialized exercise, and this need has been well supplied by the fascinating rhythmic folk-dances in which the play spirit of mankind has manifested itself throughout the ages. This form of exercise appeals to the social instincts of children, and they abandon themselves to the movement and rhythm of the music with no apparent effort and no consciousness of self. When the weather permits, these games, or dances, should be performed in the open air. A piano should be provided for every school that is without one, as this form of exercise loses much of its charm when unaccompanied by music.

MEDICAL INSPECTION.

We have in this city a force of thirteen medical inspectors who receive their appointment from the Board of Health. These inspectors are all practicing physicians, and each of them has in charge about 1,400 school children. Each physician visits the schools under his care twice each week, and teachers report to him all pupils who are ailing or who have returned to school after recovery from an infectious disease without a permit from the Board of Health. The inspector has authority to exclude pupils from school until such time as, in his judgment, they may safely be allowed to return. If, for any reason, it is deemed advisable, or if a contagious disease is discovered or reported by other physicians, all the pupils in a given room are

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inspected by the school physician. Twice each year there is a general inspection of all the pupils in the schools. Copies of several of the notices that are being sent out by the health department are appended as an illustration of the practical nature of the work that is being done.

NOTICE TO MEDICAL INSPECTOR.

Dear Doctor:—

.....,

a pupil in.....Street School, Room No....., has been reported sick with Diphtheria. Will you kindly examine pupils in that room to-day for any other incipient or latent cases and report the result of your inspection to the Health Department.

.....,

Health Physician.

NOTICE TO PARENTS OR GUARDIANS.

The disease mentioned on the other side of this card is a contagious affection, and is liable to be transmitted to other children. The child should receive prompt treatment by any physician, and return to school on the date mentioned. If found free from contagion at this time he may resume school attendance.

Per order

BOARD OF HEALTH.

To Parents of.....

Address.....

Upon special examination made by the School Inspector your child is found to have defective teeth, enlarged tonsils, and ..he breathes through the mouth (adenoids?).

These defects are all preventable and curable, but if allowed to continue are very liable to cause sickness and also to materially interfere with the child's development and progress in school.

Thinking these troubles have been overlooked, the liberty is taken of calling your attention to the great importance of having them corrected, as continued neglect will surely be regretted in later years.

Your Physician or Dentist should be consulted as soon as possible for advice as to treatment.

BOARD OF HEALTH.

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THE SPECIAL CLASS FOR MENTALLY DEFECTIVE CHILDREN.

Frequent inquiries regarding our school for mental defectives are received from school boards and school superintendents throughout the country. The interest in the work of this school is so widespread that a brief account of its aims and accomplishment will not be out of place, although a similar account appeared in the school report for 1909.

The school occupies a room in a primary building that is centrally located, and car tickets are furnished by the School Board to those pupils whose homes are at a distance. The hours of attendance are from 8:45 to 11:45 in the forenoon, and from 1:30 to 3:30 in the afternoon. The membership is limited to fourteen. Generally speaking, the results attained are satisfactory in proportion to the age of entrance, the younger pupils making better progress as a rule. Low grade cases are not admitted, but parents are assisted in placing these children in the state institutions for the feeble-minded located at Waverly and Wrentham. One of the special functions of the school is the examination of children who give evidence of permanent mental and physical defects, with a view to placing them in the state institutions that are best fitted to meet their particular needs.

Certain factors have contributed to the success of the work, namely, a large, well-lighted room, equipped with fourteen movable, adjustable seats, four workbenches well supplied with tools, a sand table and liberal blackboard space; also a basement room which serves as a playroom and gymnasium.

Much is due to the principal of the building in which the school is located. By her keen interest in the progress of individual pupils, and by her efforts to develop in each of the children a sense of responsibility for the success and well-being of the school community, she is exerting upon the class a constant and wholesome influence.

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The teacher of this special class has been very successful in her efforts to establish sympathetic relations between the school and the homes from which the children come, and, as a consequence, the parents are eager to co-operate in her plans for the physical and intellectual improvement of the pupils. All efforts to remove physical handicaps have been generously seconded by specialists in the treatment of the eye, ear, nose, throat, and teeth.

The course of study makes large provision for physical and manual training, and many of the school activities have for their object the development of the senses of touch, sight, and hearing. On the academic side, there are daily lessons in reading, writing, spelling, number, drawing, and singing, and effective training in English is given by means of story-telling and dramatization. The school aims to prepare for the third grade those pupils who give evidence of their ability to carry with some degree of success the work of the ordinary schools.

A record is kept of the progress of each pupil and of his physical condition while in school. His occupation, place of residence, and the measure of his success in after life are also matters of record.

The following statement of the present status of former pupils of the school is suggestive and interesting:—

SUMMARY OF STATISTICS OF 50 GRADUATES.

20 per cent are at present in grades.
34 per cent are regularly employed.
8 per cent are irregularly employed.
2 per cent are in the army.
20 per cent are in institutions.
16 per cent are at home.

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EVENING SCHOOLS.

The total enrollment of all the evening schools during the winter of 1910–11 was 2,673. The enrollment by schools is as follows:—

Chestnut Street Elementary Evening School, . .	511
Howard Street Elementary Evening School, . .	570
Indian Orchard Elementary Evening School, . .	202
Preparatory Department to Evening High School, .	136
Evening High School, ...	729
Evening School of Trades (including Evening Drawing School), ...	525

In the fall of 1910 the Evening High School was transferred from the Technical High School building to the Central High School. This transfer was made necessary by the growth of the Evening School of Trades, and has proved of advantage to both schools.

SCHOOL VISITATION.

For some time past teachers have been allowed two days each year for school visitation. Not more than two or three schools have been closed for this purpose on any given day, thus securing to teachers an opportunity to visit schools either in their own city or in neighboring cities or towns. These "visiting days" have been a source of stimulation and growth to the teaching force, and this has offset the loss to the pupils of two days' schooling each year. In order to diminish this loss without depriving teachers of the opportunity for self-improvement, the Board has put into operation a new scheme of school visitation that is meeting with general approval. A single day for visiting is to be granted to all the teachers of the city each year, and the schools will, in turn, be closed for this purpose. In addition, teachers new to the city or to the grade, or teachers who are making a study of some particular educational problem, may, at the discretion of the superintendent, be

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allowed an additional day or two for school visitation. During the absence of these teachers, paid substitutes will be placed in charge of their class rooms, so that the work of the pupils may not be interrupted.

ART AND HAND WORK.

A new course in art and hand work for grades I. to V. was issued this fall. The course was arranged by the directors of art and manual training, in conjunction with the assistant superintendent, and it seeks to correlate the art and hand work in the primary schools with many of the regular school subjects. It is based upon the conviction that manual activity supplements and reinforces impressions received through the eye and ear. Children are therefore encouraged to illustrate much of the work in literature, geography, history, etc., by means of sand table pictures, clay modeling, pencil and blackboard drawings, water color sketches, and construction of various sorts. Many practical suggestions for this illustrative work are to be found in the new course.

The observance of Thanksgiving, Christmas, and other holidays affords opportunity for practice in applied design. As the time for their celebration approaches, these festivals become the chief centers of interest, and much enthusiasm is manifested in the making of simple gifts as an expression of the holiday spirit.

In grade II. the children make a study of the early Cave Men, the Cliff Dwellers, and the American Indians, with reference to their homes and modes of life. The homes and occupations of these primitive peoples are contrasted with modern homes and modern activities. The hand work suggested for this grade consists, therefore, to a large extent, in the construction of various forms of shelter; from the hut built of mud and woven of twigs and the Indian wigwam, to the fully equipped modern home as illustrated by a doll house

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that is furnished throughout in approved modern fashion by the pupils themselves.

In grade III. pupils use block printing to decorate covers for number work, spelling covers, etc., and they originate simple units of design by grouping spots of various shapes. They weave rugs and originate designs for same, deriving the motifs from their study of geography or history.

The course as outlined for grades IV. and V. follows the same general plan, keeping closely in touch with the regular school work.

The entire plan is still incomplete and subject to revision, and with the aid of the teachers, who are constantly making valuable suggestions, it should be greatly improved from year to year.

Respectfully submitted,

BERTHA M. McCONKEY,

Assistant Superintendent of Schools and Supervisor of Primary Schools and Kindergartens.

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STATISTICS

ACCOMPANYING

Superintendent's Report.

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FINANCIAL STATEMENT

For the Fiscal Year Ending November 30, 1911.

Valuation of the city, 1911, . . .		$128,053,034 00
Value of school buildings, land, and furniture, ...	$2,943,790 01	
Value of books, supplies, and apparatus,	106,227 34	
Kindergarten equipment and supplies, .	3,026 41	
Technical School equipment, materials, .	22,914 73	
Cooking School equipment and supplies,	2,390 48	
High School of Commerce equipment and supplies, ...	6,000 00	
Vocational School equipment and supplies, ...	7,311 15	
Tools and furniture in hands of Schoolhouse Agent, ...	373 20	
Janitors' supplies, Schoolhouse Agent, .	780 77	
Fuel on hand, ...	12,600 00	
Total value of school property, .		$3,105,414 09

ORDINARY SCHOOLS.

Appropriation, ...		$394,108 00	
Receipts: Tuition from non-resident pupils, ...		4,971 30	
Tuition of State minor charity wards, ...		184 00	
Rental of piano, . . .		22 00	
Old books, packing-cases, fines, and materials sold, etc., ...		351 53	
Money advanced for office expenses, ...		100 00	
			$399,736 83
Expenditures, as below, ...	$399,091 39		
Transfer to Kindergartens, . . .	150 00		
Return of money advanced for office expenses, ...	100 00		
Balance unexpended, ...	395 44		
			$399,736 83

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EXPENDITURES.

SALARIES.

Day School teachers,	$333,429 80	
Evening School teachers,	10,149 50	
		$343,579 30
Superintendent,	$4,166 63	
Superintendent's clerk,	1,966 67	
Clerical assistance,	2,048 00	
Truant officer,	1,399 93	
Truant officer's assistant,	700 00	
Clerical assistance at High School,	775 87	
Clerical assistance at Evening High School,	91 25	
Clerical assistance at Evening Primary and Grammar School,	2 00	
Clerk School Committee,	100 00	
Clerical assistance at Chestnut Street School,	438 00	
		$11,688 35

BOOKS, ETC.

Regular text-books,	$8,915 43	
Supplementary text-books,	1,018 14	
Book covers and book mending materials,	958 39	
Binding books,	410 50	
Reference books,	659 27	
		$11,961 73

PAPER, ETC.

Writing paper,	$2,155 72	
Manila practice paper,	771 25	
Drawing paper,	998 86	
Notebooks and spelling blanks,	798 98	
Blotting paper,	121 25	
Amounts carried forward,	$4,846 06	$367,229 38

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Amounts brought forward, . .	$4,846 06	$367,229 38
Envelopes, ...	139 91	
Tracing paper, ...	7 00	
Bookkeeping paper and blank books, .	295 47	
Pressboard and cardboard, . . .	199 72	
Miscellaneous paper supplies, . . .	237 25	
		$5,725 41
MISCELLANEOUS SUPPLIES.		
Ink, ...	$207 95	
Paste, mucilage, and glue, . . .	185 20	
Pens and holders, ...	418 78	
Lead pencils, ...	1,014 37	
Drawing pencils, ...	128 00	
Water color paints, ...	233 71	
Paint pans, cups, and brushes, . .	81 71	
Colored drawing crayons, . . .	244 00	
Miscellaneous drawing supplies, . .	318 96	
Thumb tacks and paper fasteners, . .	112 16	
Rubber erasers, ...	217 03	
Crayon, ...	27 20	
Blackboard erasers, ...	237 61	
Sponges, ...	135 80	
Rules, ...	51 60	
Miscellaneous supplies, ...	1,059 14	
Hygiene supplies, ...	176 75	
Kindergarten materials, ...	146 19	
Sewing supplies, ...	186 76	
Laboratory supplies, Central High School, ...	645 40	
Laboratory assistance, Central High School, ...	102 36	
Elementary science supplies, . . .	129 24	
		$6,059 87
PERMANENT EQUIPMENT.		
Science apparatus, Central High School,	$970 26	
Elementary science apparatus, . .	127 99	
Maps, charts, and globes, . . .	389 36	
Amounts carried forward, . .	$1,487 61	$379,014 66

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Amounts brought forward, . .	$1,487 61	$379,014 66
Drawing boards, ...	14 40	
Miscellaneous drawing equipment, . .	94 70	
Compasses, ...	92 25	
Scissors, ...	98 00	
Pencil sharpeners, ...	86 75	
Piano, ...	50 00	
General equipment, ...	510 07	
Office equipment, ...	102 65	
		$2,536 43
MANUAL TRAINING.		
Equipment, ...	$1,069 53	
Material and supplies, ...	2,247 53	
Sundries, ...	476 03	
		$3,793 09
PHYSICAL TRAINING.		
Equipment, ...	$484 04	
Supplies, ...	50 04	
Sundries, ...	158 92	
Use of athletic quarters in International Y. M. C. A. Training School, . .	180 00	
		$873 00
PRINTING.		
Annual report and school manuals, .	$489 17	
Teachers' report blanks and record books, ...	133 36	
Office blanks, blank books, and stationery, ...	300 01	
Courses of study, ...	340 26	
Schedule of recitations, ...	87 88	
Evening School blanks and notices, .	55 96	
Graduation invitations, programs, etc.,	74 88	
Miscellaneous, ...	458 68	
		$1,940 20
Amount carried forward, . .		$388,157 38

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Amount brought forward, . .		$388,157 38

SUNDRIES.

Transportation of pupils, . . .	$1,275 00	
Expense of compiling school census, .	600 00	
Advertising, ...	98 64	
Postage and telegrams, ...	488 50	
Telephones, ...	618 27	
Freight and express, ...	234 79	
Delivering supplies to schools, . .	902 10	
Assistance delivering supplies, . .	857 80	
Traveling expenses, ...	123 42	
Carriage hire, ...	43 50	
Tuning, repairing, and moving pianos, .	134 22	
Matrons' services in bath rooms, . .	1,852 50	
Office supplies and incidentals, . .	183 87	
Newsboys' badges, ...	105 00	
Graduation expenses, ...	365 62	
Diplomas, ...	120 00	
Engrossing diplomas, ...	114 22	
Drawing assistance and models, . .	144 50	
Tuition refunded, ...	23 50	
Incidentals, ...	160 02	
		$8,445 47

JANITORS' SUPPLIES, ETC.

Brooms, brushes, and dusters, . . .	$451 05	
Mops, mop rags, etc., ...	140 28	
Towels, ...	213 11	
Soap, washing powders, etc., . . .	534 95	
Disinfectants, ...	138 45	
Toilet paper, ...	208 71	
Laundry, ...	473 74	
Flags and repairing, ...	190 70	
Shovels, pails, dustpans, baskets, etc., .	127 30	
Incidentals, ...	10 25	
		$2,488 54
		$399,091 39

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TECHNICAL HIGH SCHOOL.

Appropriation,	$51,624 00	
Transfer from Evening Trades School,	1,000 00	
Receipts: Tuition of non-resident pupils,	5,089 00	
Materials sold, etc.,	146 87	
		$57,859 87
Expenditures, as below,	$56,534 25	
Transfer to Evening Trades School,	1,000 00	
Balance unexpended,	325 62	
		$57,859 87

EXPENDITURES.

Salaries of teachers,		$48,409 70
BOOKS.		
Text-books,	$780 42	
Reference books,	102 82	
		$883 24
SUPPLIES.		
Drawing,	$681 18	
Laboratory,	250 69	
Machine shop,	228 93	
Forge shop,	143 03	
Woodworking,	119 06	
Household arts,	24 90	
Household science,	77 55	
Arts,	125 36	
Miscellaneous,	330 86	
		$1,981 56
PERMANENT EQUIPMENT.		
Drawing,	$49 34	
Laboratory,	198 85	
Forge shop,	5 54	
Woodworking,	792 45	
Household arts,	650 69	
Household science,	212 38	
Arts,	59 84	
General,	214 10	
		$2,183 19
Amount carried forward,		$53,457 69

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Amount brought forward, . .		$53,457 69
MATERIALS.		
Machine shop, ...	$130 61	
Forge shop, ...	164 59	
Woodworking, ...	524 97	
Household arts, ...	44 46	
Household science, ...	147 89	
Arts, ...	20 53	
		$1,033 05
SUNDRIES.		
Printing, ...	$303 37	
Freight, express, and postage, . . .	87 14	
Clerical assistance, ...	750 00	
Tool-room assistants, ...	355 55	
Laboratory assistants, ...	92 24	
Drawing assistants, ...	66 10	
Household science assistants, . . .	20 37	
Arts assistants, ...	4 90	
Repairs, ...	244 96	
Incidentals, ...	118 88	
		$2,043 51
		$56,534 25

EVENING SCHOOL OF TRADES.

Appropriation, ...	$3,308 00	
Transfer from Technical High School, .	1,000 00	
Receipts for tuition and incidental fees,	1,198 50	
Sale of lead waste, ...	32 00	
		$5,538 50
Expenditures, as below, ...	$4,535 40	
Transfer to Technical High School, .	1,000 00	
Balance unexpended, ...	3 10	
		$5,538 50

EXPENDITURES.

Salaries of teachers, ...	$3,950 50	
Materials, supplies, and equipment, .	293 73	
Sundries, ...	291 17	
		$4,535 40

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HIGH SCHOOL OF COMMERCE.

Appropriation,	$19,020 00	
Sale of old books,	25 00	
Receipts for tuition,	2,513 50	
		$21,558 50
Expenditures, as below,	$21,438 03	
Balance unexpended,	120 47	
		$21,558 50

EXPENDITURES.

Salaries of teachers,	$18,351 90	
Clerical assistance,	442 93	
Text-books,	731 92	
Reference books,	5 36	
Equipment,	592 26	
Miscellaneous supplies,	1,065 49	
Sundries,	248 17	
		$21,438 03

COOKING SCHOOLS.

Appropriation,		$4,500 00
Expenditures, as below,	$4,318 65	
Balance unexpended,	181 35	
		$4,500 00

EXPENDITURES.

Salaries of teachers,	$3,071 25	
Furniture and equipment,	181 26	
Groceries and provisions,	832 24	
Incidentals,	233 90	
		$4,318 65

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KINDERGARTENS.

Appropriations,	$21,300 00	
Transfer from Ordinary Schools,	150 00	
		$21,450 00
Expenditures, as below,	$21,442 84	
Balance unexpended,	7 16	
		$21,450 00

EXPENDITURES.

Salaries of teachers,	$20,866 09	
Furniture and equipment,	106 51	
Miscellaneous supplies,	415 88	
Incidentals,	54 36	
		$21,442 84

VOCATIONAL SCHOOL.

Appropriation,	$10,540 00	
Appropriation, additional,	1,500 00	
Receipts for tuition,	30 00	
Receipts for old motors, etc.,	175 25	
		$12,245 25
Expenditures, as below,	$12,231 49	
Balance unexpended,	13 76	
		$12,245 25

EXPENDITURES.

Salaries of teachers,	$5,568 50	
Equipment,	4,427 31	
Books,	16 89	
Supplies,	1,561 25	
Rent, heat, power, etc.,	338 70	
Incidentals,	318 84	
		$12,231 49

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SUMMARY.

	Appropriations.	Receipts plus or minus Transfers.	Appropriations, Receipts and Transfers.
Ordinary Schools,	$394,108 00	$5,528 83	$399,636 83
Technical High School,	51,624 00	5,235 87	56,859 87
Evening School of Trades,	3,308 00	1,230 50	4,538 50
High School of Commerce,	19,020 00	2,538 50	21,558 50
Cooking Schools,	4,500 00		4,500 00
Kindergartens,	21,300 00	150 00	21,450 00
Vocational School,	12,040 00	205 25	12,245 25
Schoolhouse Repairs,	25,350 00	109 21	25,459 21
Schools, City Property Com.,	80,300 00	1,392 76	81,692 76
	$611,550 00	$16,390 92	$627,940 92

	Appropriations, Receipts and Transfers.	Expenditures.	Balances Unexpended.
Ordinary Schools,	$399,636 83	$399,241 39	$395 44
Technical High School,	56,859 87	56,534 25	325 62
Evening School of Trades,	4,538 50	4,535 40	3 10
High School of Commerce,	21,558 50	21,438 03	120 47
Cooking Schools,	4,500 00	4,318 65	181 35
Kindergartens,	21,450 00	21,442 84	7 16
Vocational School,	12,245 25	12,231 49	13 76
Schoolhouse Repairs,	25,459 21	23,458 83	2,000 38
Schools, City Prop. Com.,	81,692 76	79,654 92	2,037 84
	$627,940 92	$622,855 80	$5,085 12

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Expenditures in the Schoolhouse Agent's department, and expenditures for New School Buildings and for Alterations and Permanent Improvements, are made by the Committee on City Property of the City Government, not by the School Board. They are included in this report as a matter of information and convenience.

SCHOOLHOUSE AGENT'S DEPARTMENT.

ORDINARY SCHOOLS.

Appropriation,	$80,300 00	
Receipts,	542 75	
Transfer,	850 01	
		$81,692 76
Expenditures as below,	$79,654 92	
Balance unexpended,	2,037 84	
		$81,692 76

EXPENDITURES.

Premium on boiler insurance,	$337 50	
Liability insurance,	49 20	
Extra mopping,	301 85	
Electric lights and gas,	4,883 85	
Electric power,	1,798 50	
Finishing two rooms Chestnut Street School,	559 62	
Extra mopping kindergarten floors,	428 40	
Lawns, tools, sidewalks, etc.,	999 08	
Agents' and janitors' salaries,	41,725 82	
Evening school janitors,	1,035 44	
Extra janitor service,	433 03	
Shoveling snow,	411 45	
Coal,	24,233 78	
Charcoal and wood,	452 90	
Clerical work,	486 50	
Sundries, furnishings,	92 24	
Options on property,	100 00	
Custodian at Technical High School,	300 00	
Automobile,	387 02	
Telephone rentals,	38 18	
Fire extinguishers,	75 25	
Retaining wall, Worthington Street School,	339 57	
Incidentals,	185 74	
		$79,654 92

SCHOOLHOUSE REPAIRS.

Appropriation,	$25,350 00	
Receipts,	109 21	
		$25,459 21
Expenditures,	$23,458 83	
Balance unexpended,	2,000 38	
		$25,459 21

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The expenditures chargeable to the different grades of schools are as follows:—

DAY SCHOOLS.

HIGH.

Teachers' salaries,	$45,458 50	
Clerical assistance,	775 87	
Text-books and book covers,	1,994 24	
Reference books,	54 82	
Writing paper, notebooks, etc.,	808 90	
Miscellaneous supplies,	670 21	
Laboratory supplies,	645 40	
Laboratory assistance,	102 36	
Science apparatus,	970 26	
Pianos, tuning, repairing, and moving,	24 92	
Miscellaneous equipment,	442 23	
Printing,	441 04	
Diplomas and graduation expenses,	325 30	
Postage, telegrams, and telephone,	111 95	
Physical training, supplies,	11 46	
Physical training, equipment,	377 04	
Physical training, sundries,	232 71	
Janitors' supplies,	416 55	
Laundry,	99 25	
Sundries,	196 32	
Proportion of general expenses,	1,768 16	
		$55,927 49

PRIMARY AND GRAMMAR.

Teachers' salaries,	$287,971 30	
Truant officers,	2,099 93	
Clerical assistance, Chestnut Street School,	438 00	
Text-books and book covers,	9,069 10	
Reference books,	604 45	
Amounts carried forward,	$300,182 78	$55,927 49

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Amounts brought forward, . .	$300,182 78	$55,927 49
Writing paper, notebooks, etc., . .	4,829 37	
Miscellaneous supplies, ...	4,266 43	
Elementary science, supplies, . . .	129 24	
Elementary science, equipment, . .	127 99	
Maps, charts, and globes, ...	373 76	
Physical training, equipment, . . .	107 00	
Physical training, supplies, . . .	38 58	
Physical training, sundries, . . .	106 21	
Miscellaneous equipment, . . .	519 54	
Manual training, equipment, . . .	1,069 53	
Manual training, supplies, . . .	2,247 53	
Manual training, sundries, . . .	476 03	
Printing, ...	845 50	
Transportation of pupils, . . .	1,275 00	
Matrons' services in bath rooms, . .	1,852 50	
Diplomas and graduation expenses, .	260 99	
Janitors' supplies, ...	1,598 25	
Laundry, ...	374 49	
Pianos, tuning, repairing, and moving, .	109 30	
Sundries, ...	606 23	
Proportion of general expenses, . .	10,484 31	
		$331,880 56

EVENING SCHOOLS.

HIGH.

Teachers' salaries, ...	$3,447 25	
Clerical assistance, ...	91 25	
Text-books, ...	84 67	
Miscellaneous supplies, ...	272 77	
Printing and advertising, . . .	29 93	
Diplomas and graduation expenses, .	13 55	
Sundries, ...	23 25	
Proportion of general expenses, . .	130 49	
		$4,093 16
Amount carried forward, . .		$391,901 21

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Amount brought forward, . .		$391,901 21

PRIMARY AND GRAMMAR.

Teachers' salaries, ...	$6,520 25	
Clerical assistance, ...	2 00	
Text-books, ...	154 45	
Miscellaneous supplies, ...	58 50	
Printing and advertising, . . .	9 59	
Proportion of general expenses, . .	219 57	
		$6,964 36

DRAWING.

Teachers' salaries, ...	$182 00	
Printing and advertising, . . .	9.60	
Supplies, ...	4 20	
Models, ...	23 50	
Proportion of general expenses, . .	6 52	
		$225 82
		$399,091 39

GENERAL EXPENSES.

Superintendent, ...	$4,166 63	
Superintendent's clerk, ...	1,966 67	
Clerical assistance, ...	2,048 00	
Clerk of School Committee, . . .	100 00	
Printing, ...	642 92	
Advertising, ...	60 26	
Postage and telegrams, ...	501 40	
Freight and express, ...	206 63	
Delivering supplies to schools, . .	900 30	
Assistance delivering supplies, . .	857 80	
Traveling expenses, ...	123 42	
Carriage hire, ...	43 50	
Newsboys' badges, ...	105 00	
Compiling school census, ...	600 00	
Office supplies and equipment, . .	200 90	
Incidentals, ...	85 62	
		$12,609 05

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COST PER PUPIL.

(Based on average number belonging.)

SCHOOLS.	Teachers' Salaries.	Text and Reference Books.	Supplies and Equipment.	Gen'l Expenses and Miscellaneous.	Total Cost per Pupil.
Central High School	$64.12	$2.89	$6.73	$5.14	$78.88
Commercial Department	47.06	1.91	4.31	1.80	55.68
Technical High School	83.23	1.51	5.19	3.51	93.44
Primary and Grammar	25.82	.87	1.46	1.61	29.76
Evening High School	7.88	.20	.62	.66	9.36
Evening Prim. and Gram.	11.18	.26	.10	.37	11.91
Evening Drawing	7.60		.17	1.65	9.42
Average for day schools	$31.20	$1.04	$2.00	$1.90	$36.14
Average for evening schools	$ 9.72	$0.23	$0.32	$0.53	$10.80
KINDERGARTENS	$27.82		$0.70	$0.08	$28.60

TECHNICAL HIGH SCHOOL.

(Average number belonging, 581.0)

ACCOUNT OF THE SCHOOL COMMITTEE.

	Salaries.	Text-Books.	Materials and Supplies.	Sundries.	Totals.
Academic Department	$50.61	$1.42	$0.72	$1.24	$54.19
Mechanical Department	32.42	.09	4.47	2.27	39.25
Totals	$83.23	$1.51	$5.19	$3.51	$93.44

EVENING SCHOOL OF TRADES.

(Average number belonging, 380.0)

Salaries.	Materials and Supplies.	Sundries.	Heat, Light and Power.	Total.
$19.40	$0.77	$0.77	$3.24	$20.18

Received for Incidental Fees 3.24

Net per capita cost $16.88

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GENERAL STATISTICS.

POPULATION.

Population of the city, 1910 (United States Census), 88,926
Population of the city, 1910 (Assessors' Estimate), 92,048

SCHOOL CENSUS.

Number of children in Springfield between five and sixteen years of age, Sept. 1, 1911, 15,221

Distributed as follows:—

Ages.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.	11 yrs.	12 yrs.	13 yrs.	14 yrs.	15 yrs.	Totals.	
Ward M	130	163	144	154	147	175	159	146	166	165	158	1707	
I F	119	170	163	139	149	143	132	155	142	172	133	1617	
Totals.	249	333	307	293	296	318	291	301	308	337	291		3324
Ward M	69	88	91	94	86	88	88	85	75	77	67	908	
II F	87	85	92	104	89	76	98	90	78	80	65	944	
Totals.	156	173	183	198	175	164	186	175	153	157	132		1852
Ward M	19	24	30	28	29	34	30	28	27	13	19	281	
III F	30	32	31	22	28	31	33	27	27	23	18	302	
Totals.	49	56	61	50	57	65	63	55	54	36	37		583
Ward M	43	49	42	43	58	41	43	41	57	49	51	517	
IV F	50	46	47	41	51	43	45	44	36	49	43	496	
Totals.	93	95	89	84	109	84	88	85	93	98	94		1012
Ward M	50	50	56	53	38	39	56	52	39	57	63	553	
V F	40	69	65	49	59	44	60	50	69	81	55	641	
Totals.	90	119	121	102	97	83	116	102	108	138	118		1194
Ward M	78	71	65	63	69	67	67	64	72	63	55	784	
VI F	66	71	79	85	79	70	64	91	65	70	54	794	
Totals.	144	142	144	148	148	137	131	155	137	133	109		1528
Ward M	125	120	147	133	144	117	118	114	128	98	93	1337	
VII F	116	136	128	133	134	106	123	125	112	102	79	1294	
Totals.	241	256	275	266	278	223	241	239	240	200	172		2631
Ward M	162	149	166	158	158	136	131	141	122	126	128	1572	
VIII F	137	157	157	125	111	141	168	152	146	113	118	1525	
Totals.	299	306	323	283	269	277	299	293	268	239	241		3097
Grand Totals	1321	1480	1508	1424	1429	1351	1415	1405	1361	1338	1194		15221

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SCHOOL ATTENDANCE.

Ages.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.	11 yrs.	12 yrs.	13 yrs.	14 yrs.	15 yrs.	To-tals.
Public Schools.....	980	1181	1287	1140	1162	1119	1169	1151	1153	945	677	11914
Parochial Schools.....	157	230	243	273	255	221	235	243	188	121	68	2234
Private Schools.....	7	9	7	3	4	5	8	8	11	15	24	101
At Home.....	177	60	16	8	8	6	3	3	9	44	59	393
At Work.....										213	366	579
												15221

Of the above number not attending school, 124 boys and 89 girls fourteen years of age, and 233 boys and 133 girls fifteen years of age, are at work.

Number of male illiterate minors over fourteen years of age, 289
Number of female illiterate minors over fourteen years of age, 134

Total, 423

Summary of school census for 1910:—

	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.	11 yrs.	12 yrs.	13 yrs.	14 yrs.	15 yrs.	Totals.
In public schools ..	972	1181	1134	1118	1073	1168	1063	1179	1159	932	694	11673
In parochial schools ..	141	180	229	208	191	229	216	202	183	108	75	1957
In private schools..	7	6	4	5	2	7	6	6	9	15	16	83
Not attending school.	209	71	22	12	10	8	6	7	11	244	346	946
Totals for 1910	1329	1438	1389	1338	1276	1412	1291	1394	1362	1299	1131	14659

THE ENUMERATION COMPARED BY WARDS.

Wards.	1908	1909	1910	1911
I	2741	2935	3204	3394
II	2064	2072	1886	1852
III	603	597	597	583
IV	924	978	968	1012
V	1230	1190	1194	1194
VI	1501	1508	1497	1528
VII	2261	2275	2520	2631
VIII	2747	2780	2793	3097
	14091	14335	14659	15221

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SCHOOL ENROLLMENT AND ATTENDANCE.

(For the school year ending June 30, 1911.)

SCHOOLS.	Whole Number Enrolled.	Average Number Belonging.	Average Number Attending.	Per cent. of Attendance.
High,	1,722	1,647.5	1,556.6	94.6
Grammar and Primary,	12,896	11,153.5	10,332.7	92.6
Kindergartens,	1,456	749.9	612.9	81.7
All day schools,	16,074	13,550.9	12,504.2	92.2
Evening High,	865	437.1	322.8	73.8
Evening Grammar and Primary,	1,283	582.9	418.3	71.7
Evening Trade Classes,	525	373.4	308.5	82.6
All evening schools,	2,673	1,393.4	1,049.6	75.3

For detailed report of enrollment and attendance, see page 124.

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CENTRAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	22	29	Totals.	
Post-Graduate.	Boys.							1		1		1		3	
	Girls.						1	1		2				4	7
Senior A.....	Boys.							3	1					4	
	Girls.						5	4	3	1				13	17
Senior B.....	Boys.				3	5	14	12	2		1		1	38	
	Girls.				1	10	18	16	6	1	1			53	91
Junior A.....	Boys.				2	5	4	4	5	1				21	
	Girls.				1	8	10	9	3	3				34	55
Junior B.....	Boys.			1	5	15	10	3	6	1	1			42	
	Girls.			3	7	20	27	9	4					70	112
Sophomore A..	Boys.			1	1	8	4	3	2					19	
	Girls.			2	4	12	12	3	1					34	53
Sophomore B..	Boys.		1	7	17	15	8	1			1			50	
	Girls.		5	9	33	25	12	4	1					89	139
Freshman A...	Boys.		1	5	11	9	1	2		1				30	
	Girls.		3	6	15	10	10	2	1					47	77
Freshman B...	Boys.	1	12	21	29	10	3	2	2	1				86	
	Girls.	1	11	37	35	12	5		2					103	189
Totals,		2	33	92	164	164	149	79	39	12	4	1	1		740

AVERAGE AGES.

CLASS.		Average Age.	Oldest.	Youngest.	Av. Age of Class.
Post-Graduate.....	Boys.	20-0	22-6	18-3	19-3
	Girls.	18-7	20-2	18-5	
Senior A.....	Boys.	17-5	19-9	18-2	17-7
	Girls.	18-0	20-1	17-2	
Senior B.....	Boys.	17-5	29-7	15-5	17-4
	Girls.	17-4	21-10	15-7	
Junior A.....	Boys.	17-3	20-2	15-5	17-3
	Girls.	17-4	20-7	15-10	
Junior B.....	Boys.	16-8	21-2	14-10	16-7
	Girls.	16-6	19-9	14-0	
Sophomore A.....	Boys.	16-6	19-1	14-10	16-4
	Girls.	16-3	19-0	14-3	
Sophomore B.....	Boys.	15-6	21-7	13-11	15-5
	Girls.	15-5	19-0	13-4	
Freshman A.....	Boys.	15-5	20-7	13-11	14-9
	Girls.	14-3	19-1	13-3	
Freshman B.....	Boys.	14-9	20-2	12-8	14-3
	Girls.	14-8	19-0	12-8	

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CENTRAL HIGH SCHOOL—Continued.

DISTRIBUTION OF PUPILS BY CLASSES AND COURSES.

CLASS.		College Preparatory.	General.	1st Year.	Totals.	
Post-Graduate.....	Boys.	3			3	7
	Girls.	2	2		4	
Senior A.....	Boys.	1	3		4	17
	Girls.	2	11		13	
Senior B.....	Boys.	20	18		38	91
	Girls.	24	29		53	
Junior A.....	Boys.	10	11		21	55
	Girls.	11	23		34	
Junior B.....	Boys.	26	16		42	112
	Girls.	27	43		70	
Sophomore A.....	Boys.	9	10		19	53
	Girls.	15	19		34	
Sophomore B..	Boys.	38	12		50	139
	Girls.	57	32		89	
Freshman A.....	Boys.			30	30	77
	Girls.			47	47	
Freshman B.....	Boys.			86	86	189
	Girls.			103	103	
Totals,	Boys.	107	70	116	293	740
	Girls.	138	159	150	447	

TECHNICAL HIGH SCHOOL.

DISTRIBUTION OF PUPILS BY AGES AND CLASSES.

CLASS.	AGE.	12	13	14	15	16	17	18	19	20	21	Totals.	
Post-Graduate...	Boys.					1	2	1	1			5	8
	Girls.						1	1	1			3	
Senior A.....	Boys.							8	1			9	12
	Girls.							1	1	1		3	
Senior B.....	Boys.				1	3	9	9	5	2	2	31	44
	Girls.					4	4	4	1			13	
Junior A.....	Boys.				1	8	8	8	1	1		17	21
	Girls.					1			1	2		4	
Junior B...	Boys.				3	28	22	14	7			69	90
	Girls.				1	7	8	4	1			21	
Sophomore A...	Boys.				5	7	13	8	1	1		35	47
	Girls.			1	1	6	2	1		1		12	
Sophomore B...	Boys.			13	35	31	15	6	2	1		103	137
	Girls.		1	4	9	13	7					34	
Freshman A.....	Boys.		3	5	18	18	7	2				53	86
	Girls.			7	13	9	2	2				33	
Freshman B.....	Boys.		3	47	55	25	7	2			2	141	211
	Girls.	1	6	22	20	12	6	2	1			70	
Totals.		1	13	99	162	168	108	68	24	9	4		656

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TECHNICAL HIGH SCHOOL—Continued.

AVERAGE AGES.

CLASS.		Average Age.	Oldest.	Youngest.	Average Age of Class.
Post-Graduate.....	Boys.	18-1	19-11	16-9	18-5
	Girls.	18-9	19-11	17-6	
Senior A.....	Boys.	18-7	19-1	18-1	18-11
	Girls.	19-3	20-0	18-7	
Senior B.....	Boys.	18-5	21-1	15-5	18-0
	Girls.	17-8	19-1	16-1	
Junior A.....	Boys.	17-4	20-3	16-0	18-2
	Girls.	19-0	20-4	16-6	
Junior B.....	Boys.	17-4	19-4	15-8	17-4
	Girls.	17-4	19-2	15-6	
Sophomore A.....	Boys.	17-8	20-9	15-1	17-8
	Girls.	16-10	20-0	14-11	
Sophomore B.....	Boys.	16-3	20-0	14-1	16-2
	Girls.	16-1	17-11	13-7	
Freshman A.....	Boys.	15-11	18-6	13-7	15-6
	Girls.	15-0	18-0	14-0	
Freshman B.....	Boys.	15-6	21-8	13-1	15-3
	Girls.	15-5	19-4	12-6	

DISTRIBUTION BY CLASSES AND COURSES.

CLASS.		Technical.	College Preparatory.	Normal Preparatory.	Totals.	
Post-Graduate...	Boys.		5		5	8
	Girls.	2	1		3	
Senior A.....	Boys.	6	3		9	12
	Girls.	2	1		3	
Senior B.....	Boys.	14	17	4	31	44
	Girls.	7	2		13	
Junior A.....	Boys.	7	10	3	17	21
	Girls.	1			4	
Junior B.....	Boys.	39	30	3	69	90
	Girls.	14	4		21	
Sophomore A...	Boys.	21	14	4	35	47
	Girls.	5	3		12	
Sophomore B...	Boys.	53	50	10	103	137
	Girls.	14	10		34	
Freshman A.....	Boys.	35	18	10	53	86
	Girls.	17	6		33	
Freshman B.....	Boys.	94	47	29	141	211
	Girls.	29	12		70	
Totals.	Boys.	269	194	63	463	656
	Girls.	91	39		198	

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HIGH SCHOOL OF COMMERCE

DISTRIBUTION OF PUPILS BY AGES AND CLASSES, 1911.

CLASS.	AGE.	13	14	15	16	17	18	19	20	21	22	Totals.	
Post-Graduate	Boys.						1					1	10
	Girls.					1	1	2	3		2	9	
Senior A	Boys.						2	1	1			4	15
	Girls.						5	3	1	1	1	11	
Senior B	Boys.				1	4	6	3				14	47
	Girls.				3	8	13	7	2			33	
Junior A	Boys.				1	3	4	5				13	33
	Girls.					6	7	4	1	2		20	
Junior B	Boys.			1	2	1	2	1				7	55
	Girls.			2	9	23	10	4				48	
Sophomore A	Boys.			1	4	4	1	1				11	34
	Girls.			1	10	8	2	2				23	
Sophomore B	Boys.	1		3	8	6	3					21	82
	Girls.		3	12	25	17	4					61	
Freshman A	Boys.		2	6	3	1						12	48
	Girls.	1	4	10	13	1	5	1			1	36	
Freshman B	Boys.	2	9	12	5	5	1		1			35	118
	Girls.	1	11	44	14	9	4					83	
		5	29	92	98	97	71	34	9	3	4	118	442
												324	

AVERAGE AGES, 1911.

CLASS.		Average Age.	Oldest.	Youngest.	Average Age of Class.
Post-Graduate	Boys.	18-3	18-3	18-3	19-5
	Girls.	19-7	22-1	17-4	
Senior A	Boys.	18-10	19-11	18-2	18-11
	Girls.	18-11	21-1	17-6	
Senior B	Boys.	17-9	19-4	16-4	17-10
	Girls.	17-10	19-11	16-1	
Junior A	Boys.	18-1	19-5	16-4	18-1
	Girls.	18-2	20-9	16-8	
Junior B	Boys.	16-10	18-10	14-7	17-0
	Girls.	17-1	19-1	14-8	
Sophomore A	Boys.	16-8	18-10	15-4	16-9
	Girls.	16-8	19-3	14-7	
Sophomore B	Boys.	16-8	17-11	13-5	16-2
	Girls.	16-1	18-1	13-11	
Freshman A	Boys.	15-4	16-8	14-4	15-10
	Girls.	16-0	22-0	13-1	
Freshman B	Boys.	15-3	20-2	13-0	15-4
	Girls.	15-4	18-2	12-11	

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Number of pupils admitted to high school grade in 1911, upon recommendations of principals of city grammar schools and Miss Mary L. Poland, Superintendent of Schools of Hampden, Longmeadow, and East Longmeadow:—

	FEBRUARY	JUNE	TOTAL
Buckingham,	45	59	104
Central Street,	30	37	67
Chestnut Street,	73	125	198
Forest Park,	36	73	109
Indian Orchard,	1	21	22
Sixteen Acres,	0	6	6
State Street,	42	82	124
Miss Poland,	2	20	22
Total,	229	423	652
Number entering Central High School,	72	142	214
Number entering High School of Commerce,	57	101	158
Number entering Technical High School,	86	157	243
Total,	215	400	615
Number of pupils examined and admitted to Central High School:—			
From city grammar schools,	0	9	9
From schools outside the city (new residents and non-residents),	2	21	23
From private and parochial schools,	1	3	4
	3	33	36
Number of pupils examined and admitted to High School of Commerce:—			
From city grammar schools,	0	3	3
From schools outside the city (new residents and non-residents),	2	5	7
From private and parochial schools,	0	0	0
	2	8	10
Number of pupils examined and admitted to Technical High School:—			
From city grammar schools,	3	23	26
From schools outside the city (new residents and non-residents),	2	12	14
From private and parochial schools,	0	2	2
	5	37	42

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Whole number of pupils finishing the grammar school course (including those passing the examinations),	740
Of these, the number entering:—	
Central High School,	250
High School of Commerce,	168
Technical High School,	285
	703

	FEBRUARY	JUNE	TOTAL
Number of pupils graduated from Central High School:—			
From the College Preparatory course,	0	28	28
From the General course,	8	55	63
	8	83	91
Number of pupils graduated from High School of Commerce,	10	30	40
Number of pupils graduated from Technical High School:—			
From the College Preparatory course,	2	24	26
From the General Scientific course,	3	31	34
	5	55	60
Total number of pupils graduating from the high schools,	23	168	191

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DISTRIBUTION OF PUPILS BY AGES AND GRADES IN SEPTEMBER, 1911.

AGES.	I.	II.	III.	Gram Prep.	IV.	V.	VI.	VII.	VIII.	IX.	Vocational.	Totals.
Under 5 yrs.	19											19
5 years....	388	2										390
6 "	789	215	5									1,009
7 "	377	660	168	3	4							1,212
8 "	93	414	498	9	166	5						1,185
9 "	40	165	381	5	447	154	13					1,205
10 "	8	53	161	16	343	418	121	11	1			1,132
11 "	9	17	77	17	212	350	326	158	16			1,182
12 "	5	11	52	17	99	195	308	327	132	17		1,163
13 "	2	2	24	23	49	120	197	320	318	134	1	1,190
14 "	1	3	6	21	20	49	82	171	284	248	24	909
15 "		1		9	5	8	25	61	132	215	33	489
16 "			1	5	2		3	10	35	81	9	146
17 "				1			1		8	20	11	41
18 "				1		1				1	2	5
Over 18 yrs.											1	1
Totals.....	1,731	1,543	1,373	127	1,347	1,300	1,076	1,058	926	716	81	11,278

DISTRIBUTION OF PUPILS BY GRADES IN SEPTEMBER, 1911.

GRADES.	I.	II.	III.	Gram Prep.	IV.	V.	VI.	VII.	VIII.	IX.	Vocational.	Totals.
Alden St.....	49	27	36		36							148
Armory St...	97	75	86	19	87	77	76	66				583
Barrows.....						109	108	87				304
Belmont Av..	21	37	37		26	15						136
Boston Rd....	14	16	15		18	19	7	15				104
Brightwood..	57	70	51		58							236
Buckingham.							73	126	147	94		440
Carew St.....	92	81	120	11	75	113						492
Central St....	42	37	40		46	74	50	85	80	79		533
Charles St....	50	64	32									146
Chestnut St..						77	245	225	313	267		1,127
Dry Bridge...	1	1	5		5	5						17
Eastern Av...	46	53	31		38	43						211
E. Union St...	86	56	53	16	38							249
Five Mile Pd.	1	3	1		5	5						15
Forest Park..							118	162	146	138		564
Glenwood.....	9	8	12		10	8						47
Homer St	65	64	64		64	76						333
Hooker.....	110	99	75	20	106	80						490
Howard St...	58	46	38	17	81	82	122	102				546
I. O. Prim....	34	28	32		31							125
I. O. Gram...	63	52	33		31	68	45	43	18	22		375
Jefferson Av..	81	98	71		89							339
Kens'ton Av..	66	67	81		90	71						375
Lincoln.....	59	70	52		47	98	81	83				488
School St.....	22	25	17		30	20	12					126
Sixt'n Acres..	5	2	5		1	4	3		6			26
S. Main St....	115	80	81	20	74	64						434
State St.....								40	216	116		372
Strickland ...	87	44	37		70							238
Tapley.....	83	82	69		71	71	74					450
White St.....	78	74	66		50	67	31					366
William St...	156	104	83	24	30							397
Worth'ton St.	84	80	50		40	56	31	24				365
Vocational...											81	81
Totals.....	1,731	1,543	1,373	127	1,347	1,300	1,076	1,058	926	716	81	11,278

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AVERAGE AGE IN EACH GRADE IN SEPTEMBER, 1911.

SCHOOLS.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.
Alden Street	6-1	7-2	8-3	9-2					
Armory Street	5-10	7-2	8-2	9-1	10-7	11-7	12-8		
Barrows					11-1	11-11	12-9		
Belmont Avenue	5-11	7-0	8-1	9-2	10-4				
Boston Road	5-9	7-4	7-10	9-4	11-5	12-1	12-6		
Brightwood	6-5	7-9	8-11	10-3					
Buckingham						11-5	12-2	13-4	13-6
Carew Street	6-4	7-6	8-11	10-2	11-0				
Central Street	6-2	7-5	8-7	9-8	11-0	11-9	12-4	13-9	14-3
Charles Street	6-9	7-8	9-0						
Chestnut Street					10-11	12-1	12-9	13-6	14-2
Dry Bridge	5-0	7-0	7-0	10-0	12-0				
Eastern Avenue	6-3	7-5	8-5	9-7	10-5				
East Union Street	6-3	8-2	9-5	10-6	13-11				
Five Mile Pond	5-0	8-0	7-0	10-3	11-0				
Forest Park						11-6	12-2	13-11	14-6
Glenwood	5-7	6-9	8-0	9-3	9-9				
Homer Street	6-1	7-3	8-6	9-9	10-7				
Hooker	6-10	8-2	9-8	10-10	11-5				
Howard Street	6-8	7-8	9-4	10-0	11-8	12-4	12-11		
Indian Orchard Primary	6-0	7-2	8-0	9-7					
Indian Orchard Grammar	6-5	7-8	9-2	9-8	11-5	12-4	13-1	13-9	13-11
Jefferson Avenue	5-10	7-2	8-7	9-7					
Kensington Avenue	6-0	6-10	8-3	9-6	10-1				
Lincoln	6-2	7-2	8-11	9-10	10-10	11-10	12-10		
School Street	5-8	7-10	8-0	9-1	10-3	10-11			
Sixteen Acres	7-8	7-5	9-8	9-0	13-1	13-8		13-1	
South Main Street	6-1	7-9	9-4	10-7	11-0				
State Street							12-6	13-9	14-9
Strickland	6-0	7-4	8-2	9-11					
Tapley	6-1	7-5	8-5	9-6	10-3	11-5			
White Street	6-3	7-8	8-7	9-10	10-10	11-7			
William Street	6-5	8-3	11-9	12-8					
Worthington Street	6-11	8-2	9-3	10-3	9-11	12-1	11-4		
Average	6-1	7-5	8-3	9-6	11-1	11-9	12-6	13-7	14-2

TEACHERS IN THE PUBLIC SCHOOLS, JANUARY, 1912.

DAY SCHOOLS.	MEN.	WOMEN.	TOTAL.
High Schools,	31	66	97
Grammar Grades,	9	190	199
Primary Grades,		126	126
Vocational,	5		5
Special Schools,		7	7
Ungraded Schools,		9	9
Cooking Schools,		5	5
Kindergartens,		33	33
Special Teachers,	9	9	18
General Substitutes,		1	1
Total in Day Schools,	54	446	500
EVENING SCHOOLS.			
High,	9	15	24
Elementary,	9	46	55
Drawing,	1	1	2
Trades,	14	5	19
Total in Evening Schools,	33	67	100

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STATISTICAL TABLE

For the School Year Ending June 30, 1911.

(The registered number is the whole number of pupils in the school during any portion of the year, including transfers on account of changes in residences, etc.)

SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Central High,		William C. Hill, Prin., Grace L. Bell, Anna J. Berry, Mrs. Ida A. Burleigh, Freda Casson, Maud V. Cole, Bertha T. Davis, Sally F. Dawes, Hazel Donham, Marion E. Dunbar, Clarence M. Hall, Amy R. Hill, Ethel L. Keith, Howard C. Kelly, Frances H. Kingsley, Allen H. Knapp, Elsie de Lamarter, Jessie M. Law, Georgia E. Lyon, Elizabeth Magay, Walter V. McDuffee, Florence Messer, Marion C. Murphy, Amber L. Parlin, Helene M. Pope, Mary L. Regal, Emily C. Robbins, Ella M. Robinson, Emilie de Rochemont, Waterman S. C. Russell, Elizabeth A. Souther, Annie L. Swasey, Frances E. Thompson, Julius Tuckerman, Grace E. Urban, Angeline L. Weeks, Josephine A. White, Alice M. Wing, Ellen A. Winslow,		727	709.2	665.8	93.9
High School of Commerce,		Carlos B. Ellis, Prin., Bessie L. Adams, Grace Bigelow, Caroline Brown, Mrs. Louise M. Bullman, Bertha W. Burnham, Charles A. Campbell, Isabel P. Coffin, Anna S. Danforth, Edith A. Howland, Evered E. Kent, Will W. Macalpine, Robert L. Munson, Alfred E. Preble, Julia W. Strong, Mildred F. Wheeler,		417	384.9	361.8	94.0

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Technical High,		Charles F. Warner, Prin.,		578	555.4	531.0	95.6
		Burton A. Adams,					
		J. Hawley Aiken,					
		Bernice Allen,					
		S. Augustine de Angelis,					
		Lena C. Blake,					
		Jessie M. Bourn,					
		Clifford S. Bragdon,					
		Edwin A. Finch,					
		Harry A. Franck,					
		Elizabeth E. Gammons,					
		Harry W. Giffin,					
		Edward H. Goodrich,					
		Ernest A. T. Hapgood,					
		Fred J. Hart,					
		Nellie B. Hill,					
		Irene C. H. Hines,					
		Edward E. Holton,					
		Elliot Kingsbury,					
		Helen Knowlton,					
		Mary A. Lewis,					
		Alfred R. Lincoln,					
		August E. Metzdorf,					
		Elizabeth Morton,					
		Marie G. Musseus,					
		George D. Orner,					
		Clarence E. Paddock,					
		Lewis O. Richardson,					
		Mary L. Sawyer,					
		Esther M. Sears,					
		Rose E. Sherman,					
		Grace T. Smith,					
		Mrs. Lydia Smith,					
		Kate Stanley,					
		Mary A. Steer,					
		Vivian H. Taber,					
		Lucy H. Warner,					
		Fred M. Watts,					
		Mary A. Weaver,					
		Blanche Withee,					
Vocational,		Egbert E. MacNary, Prin.,					
		Sarah A. Hillman,		19	21.9	20.1	91.7
		Martha E. Cutler,		43	39.1	35.4	90.3
		William H. Parker,					
		Clarence J. Sanborn,					
Alden Street,	4	Elizabeth Wassum, Prin.,	III, IV	42	34.4	33.1	96.2
	3	Elizabeth Frothingham,	III	34	34.2	32.4	94.7
	2	Rachel Phelps,	II	35	33.3	31.4	92.9
	1	Carrie E. Coe,	I	39	33.5	30.5	91.0
Armory Street,		Henry E. DuBois, Prin.,					
	17	SarahA.Parsells(opened Feb.6),	VIII	0	35.2	32.2	91.4
	20	Mary V. Leary,	VII	44	36.2	33.9	93.6
	19	Bessie A. Parker,	VII	43	37.4	35.2	94.1
	18	Hazel Messenger,	VI	46	39.9	37.8	94.7
	16	Florence M. Abbe,	VI	44	40.4	38.7	95.8
	13	Mattie J. Gillette,	V	47	42.3	39.3	92.8
	12	Daisy M. Clark,	IV, V	50	39.3	36.3	92.3

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Armory Street, (*Continued*)	11	Emily L. Parsons,	IV	50	42.2	39.6	93.8
	10	Ida M. Pettee,	III, IV	43	38.4	35.4	92.1
	9	Aggie L. Sulis,	III	45	40.3	37.5	93.0
	5	Irma A. Ketchum,	II, III	44	43.0	40.5	94.2
	4	Daisy P. Seymour,	II	45	42.1	38.3	90.9
	3	Jennie T. Steele,	I, II	40	37.7	33.8	89.6
	2	Mary A. Walker,	I	38	36.9	32.0	86.7
	1	Helen L. Tuck,	I	65	39.4	33.5	85.1
	14	Mary I. Kernan,	Gram. Prep.	18	17.9	16.9	94.4
Barrows,		Wellington Hodgkins, Prin.,					
	10	Fannie F. Fiske,	VII	33	30.7	29.5	96.1
	8	Elizabeth L. Higgins,	VII	36	32.5	31.2	96.0
	7	Lulu E. Marks,	VII	32	32.2	30.9	95.9
	6	Mary H. McCarthy,	VI	38	34.0	32.1	94.4
	5	Mary F. Pomeroy,	VI	40	40.3	38.7	96.1
	1	Kathleen Crowley,	VI	45	38.6	36.1	93.5
	4	Ruth E. McIntire,	V	37	34.1	31.7	93.0
	3	Ella F. Crooker,	V	40	40.2	38.3	95.3
	2	Annie P. Gerald,	V	37	36.7	35.2	95.9
Belmont Ave.,		Amie M. Billings, Prin.,					
	4	Sara M. Thompson,	IV, V	46	39.7	36.5	91.9
	3	Grace F. Crockett,	III	51	38.2	34.5	90.3
	2	Sara M. Waters,	II	39	37.6	33.3	88.5
	1	Lillian G. Howe,	I	50	34.3	28.8	83.9
Boston Road,	4	E. Blanche Wakefield, Prin.,	VI, VII	34	24.1	22.9	95.0
	2	Annie P. Purdy,	III–V	33	32.6	30.2	92.6
	3	Harriet E. Colburn,	I–III	49	40.1	35.7	89.0
Brightwood,	1	Allie G. Axtelle, Prin.,	IV, V	44	38.3	35.6	92.9
		Bessie M. Moulton, Asst.,					
	9	Sara R. O'Brien,	III	35	30.7	27.9	90.9
	8	Margaret G. Kirby,	III	42	40.1	37.3	93.0
	7	Florence F. Champion,	II, III	43	38.6	35.8	92.7
	10	Mabel W. Hull,	I	44	35.8	31.9	89.1
	4	Grace Goldberg (opened Feb. 6),	I	23	23.7	19.7	83.1
	2	Harriet M. Blaisdell,	I	43	38.4	34.5	89.8
Buckingham,		Arthur P. Irving, Prin.,					
	12	Margaret P. Higgins,	IX	47	43.6	41.7	95.6
	11	Grace M. Reed,	IX	46	42.4	40.4	95.3
	10	Frances L. Belcher,	VIII, IX	50	42.8	41.0	95.8
	9	F. Grace Burdick,	VIII	38	38.1	35.2	92.3
	8	Edith Green,	VIII	37	39.8	38.2	96.0
	7	Lena M. Brooks,	VIII	42	43.7	41.3	94.5
	3	Edith P. Farnsworth,	VII	45	42.5	40.3	94.7
	2	Rose C. Smith,	VII	47	43.2	39.1	90.7
	1	Florence V. Miller,	VII	47	43.1	40.4	93.7
	5	Mary E. Graham,	VI	41	35.2	32.6	92.6
	4	Helen S. Doane,	VI	40	36.6	34.4	94.0
Carew Street,	18	Mary E. Daboll, Prin.,	V	41	38.9	36.1	92.8
		Ethelyn J. Russell, Asst.,					
	12	Lena M. Tewkesbury,	V	39	35.6	33.3	93.5
	7	Ella J. Jones,	IV	43	41.0	38.2	93.2
	6	Grace E. Nichols,	IV	42	40.3	36.4	90.3
	5	Fannie E. Gibbs,	III, IV	47	41.6	38.7	93.0
	4	Agnese C. Ludden,	III	45	39.2	36.0	91.8

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Carew Street, (*Continued*)	2	Carrie E. Cobb,	III	47	40.8	37.8	92.6
	11	Addie L. Hines,	II	47	42.1	38.6	91.7
	3	Fannie G. Kimball,	II	46	38.4	35.1	91.4
	1	Mrs. W. L. Miller (opened May 8),	II	1	36.2	32.6	90.0
	14	Mary M. Quirk,	I, II	39	36.1	32.9	91.1
	9	Georgietta Hooker,	I	70	38.2	33.2	86.9
	8	Georgia F. Marks,	I	59	38.8	33.3	85.8
	10	Frances E. Cheney,	Special	16	13.5	11.6	85.1
Central Street,		Arthur T. Talmadge, Prin.,					
	13	Susie E. Jewell,	IX	47	42.6	40.8	95.8
	12	Angie L. Purinton,	IX	36	35.3	34.2	95.5
	7	Elsa P. Bates,	VIII	40	37.3	36.4	96.3
	6	Margaret Cunningham,	VIII	38	38.9	37.4	96.2
	8	Rebecca L. Harding,	VII	40	37.4	35.4	94.7
	5	Monica L. Hall,	VII	38	37.9	35.0	92.4
	11	Mary A. Curtis,	VI	38	35.3	34.1	96.6
	9	Mabelle A. Wilson,	V, VI	50	41.8	39.8	95.2
	10	Minnie A. Brosnan,	V	45	43.5	40.6	93.3
	4	Clara A. Farrell,	IV, V	50	42.8	40.0	93.5
	3	Helen L. Seavey,	III, IV	42	38.4	35.7	93.0
	2	Lida E. Noyes,	II, III	42	37.6	34.8	92.6
	1	Anne L. Kemp,	I	51	41.3	36.9	89.3
Charles Street,	4	Mrs. M. Alice Williams, Prin.,	III	35	33.3	31.7	93.5
	3	Emma M. Blodgett,	II, III	30	34.9	31.9	91.2
	2	Edith L. Wood,	I, II	37	32.5	29.8	91.3
	1	Mary F. Healy,	I	62	33.3	31.6	93.5
Chestnut St.,		Albert Candlin, Prin.,					
	9	Ida A. Ross,	IX	44	39.1	37.3	95.4
	8	M. Louise Strong,	IX	42	41.1	39.5	96.1
	7	Jennie M. Roberts,	IX	43	36.3	34.3	94.6
	6	Grace A. Puffer,	IX	43	37.2	35.6	95.5
	5	Sara E. Chase,	IX	37	32.3	31.3	95.5
	4	Jean M. Ashton,	IX	33	31.9	30.1	94.4
	10	Bird M. Aibee,	VIII, IX	37	33.5	31.6	94.4
	15	Jean M. Ashton (closed Feb. 3),	VIII	40	37.3	35.3	94.7
	14	Charlotte L. Baird,	VIII	40	33.7	32.1	95.2
	13	Jennie E. Cooley,	VIII	41	34.7	32.5	93.6
	12	Ethel R. Coleman,	VIII	26	29.5	27.2	92.2
	11	Martha R. Devine,	VIII	42	37.7	35.1	93.1
	3	Anna E. Powers,	VIII	34	33.4	31.9	95.4
	2	Elsie E. Willard,	VIII	43	33.4	35.9	93.4
	1	Helen A. Buck,	VIII	33	33.4	31.4	94.0
	29	Ada B. Judson,	VII, VIII	43	33.1	35.0	91.3
	17	Mary B. Morse,	VII, VIII	33	39.3	36.6	93.1
	31	Nellie J. Campbell,	VII	45	33.3	35.9	93.7
	30	Sarah E. Burrall,	VII	43	33.9	36.4	93.6
	28	Bessie M. Graves,	VII	39	37.3	35.0	92.5
	27	Elsie E. Willard (closed Feb. 3),	VII	43	36.3	34.3	93.2
	18	Hazel E. Rugen,	VII	37	33.5	30.7	91.6
	20	Elsie M. Crosier,	VI, VII	40	40.3	38.0	93.1
	16	Louisa J. Dakin,	VI, VII	42	39.6	36.6	92.3
	32	M. Bertha Holmes,	VI	44	38.5	36.1	93.7
	26	Mabel S. Cunningham,	VI	41	37.9	34.3	90.5
	23	Flora M. Knight,	VI	41	39.5	37.2	94.1
	22	Lillian E. Abbott,	VI	39	34.1	31.6	92.6
	25	Bessie M. Bailey,	V, VI	39	37.5	34.7	92.3

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Chestnut St., (Continued)	21	Anna L. Boeker,	V, VI	34	36.1	34.1	94.4
	24	Mary G Walsh,	V	42	40.9	38.6	94.4
	15	Katherine A. Lane,	Music				
	36	Ella J. Ross,	Drawing				
Dry Bridge,	1	Alice S. Kenyon,	I–V	25	24.1	21.8	90.4
Eastern Ave.,	6	Georgia A. Hodskins, Prin., Jessie M. Lowe, Asst.,	V	40	39.6	38.2	96.5
	5	Celia M. Wood,	IV	42	38.4	36.5	95.0
	4	Margaret A. O'Brien,	III, IV	37	38.6	36.6	94.8
	3	Ellen Wilkinson,	II	36	31.8	30.3	95.3
	2	M. Helen Newton,	I, II	40	34.8	32.8	94.2
	1	Lillian M. Bartlett,	I	65	39.5	35.6	90.1
East Union Street,	8	Laura L. Boice, Prin., Jessie Dexter, Asst.,	IV	47	37.6	35.6	94.7
	5	Mary Clement,	III	41	34.3	32.0	93.3
	3	Adella F. Whitworth,	II, III	37	36.2	33.6	92.8
	2	Ella L. Whitlock,	II	40	34.8	32.3	92.8
	7	Nellie M. Peck,	I	46	35.7	32.2	90.2
	1	Bessie W. Owen,	I	67	39.0	33.0	84.6
	6	Jennie S. Perry,	Gram. Prep.	20	18.2	16.9	93.0
Five Mile Pond,	1	Alice S. Ames,	I–VI	32	20.4	18.3	89.8
Forest Park,		George E. Foss, Prin.,					
	8	Louise S. Steinway,	IX	43	36.9	34.5	93.5
	4	Annie M. Whelan,	IX	41	38.5	36.9	95.8
	3	Ethel G. Westcott,	IX	43	40.6	38.5	94.8
	2	Robenia F. Anthony,	VIII, IX	33	30.8	29.1	94.4
	18	Anna S. Bowen,	VIII	40	36.0	33.4	92.5
	9	Ruth Sprague,	VIII	39	37.3	33.5	89.8
	1	Bernice W. Dearborn,	VIII	38	37.0	34.9	94.4
	17	Lina M. Greenlaw,	VII, VIII	35	32.2	30.0	93.1
	16	Florence M. Morrison,	VII	39	34.6	32.9	95.0
	15	Katherine E. Brosnan,	VII	42	34.6	32.6	94.2
	13	Mae L. Thomas,	VII	31	34.6	32.6	94.2
	14	Helena I. Duckworth,	VI, VII	38	38.5	36.0	93.5
	11	Muriel A. Jillson,	VI	45	40.3	37.9	94.0
	10	Mabel K. Mills,	VI	43	38.8	36.6	94.3
	20	I. Louise Mason,	Drawing				
Glenwood,	2	Mary E. Loud,	III–V	33	29.5	27.3	92.5
	1	Ethel C. Hilditch,	I, II	28	24.3	22.1	90.9
Homer Street,	8	Ellen T. Sullivan, Prin., Axilee H. Bottume, Asst.,	V	36	33.9	32.3	95.2
	7	Nellie L. Warner,	V	39	39.5	37.5	94.7
	5	Mary L. Ryan,	IV	46	41.3	39.6	95.8
	4	Alice M. Ketchum,	III, IV	43	41.0	38.3	94.6
	3	Lucretia J. Barber,	III	47	41.0	37.5	91.4
	6	Annie E. Smith,	II	47	41.9	38.3	91.4
	1	Gertrude Armington,	I, II	49	41.3	36.8	89.1
	2	Isabel E. McIntire,	I	67	42.2	35.8	84.8
Hooker,	12	Margaret C. Bickett, Prin., Grace A. Stubbs, Asst.,	V, VI	39	35.8	33.9	94.9
	11	Effie M. Wilcox,	V	41	39.5	37.2	94.2
	10	Evelyn M. Proctor,	V	38	34.7	31.9	91.9

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Hooker, (*Continued*)	9	Katherine Leonard,	IV	34	36 3	34.2	94.2
	8	Anna F. Gammons,	IV	37	36.9	34.8	94.4
	7	Marguerite C. Buswell,	III	44	39.8	37.3	93.7
	6	Myra A. Pascoe,	III	43	38.7	35.6	92.0
	5	Harriet E. Brown,	II	45	37.2	34.6	93.0
	4	Lora A. Barnes,	II	44	41.9	38.7	92.3
	3	Helen M. Prouty,	I	46	36.7	34.0	92.6
	2	Agnes B. Tyne,	I	44	36.1	33.3	92.3
	1	Ida J. Rich,	I	91	38.6	33.1	85.8
	18	Mrs. C. F. Martensen,	Gram. Prep.	36	19.7	18.3	92.8
Howard Street,		John R. Fausey, Prin.,					
	2	Ione L. Foes,	VII	42	34.8	32.9	94.5
	1	Edith M. Phelps,	VII	41	35.5	33.1	93.2
	5	Ethel A. Ronaldson,	VI, VII	38	33.7	32.5	96.4
	9	Elizabeth J. Steele,	VI	46	37.0	34.5	93.2
	6	Nellie S. Batchelder,	VI	49	36.8	34.3	93.2
	3	Pearl A. Southmayd,	VI	46	38.1	35.5	93.1
	7	Elizabeth K. Woodworth,	V, VI	51	38.8	36.8	94.8
	9	Sadie P. White (opened Feb. 6),	V	1	39.4	35.4	90.0
	8	Maude M. Cole,	V	43	37.9	35.6	93.9
	14	Eunice C. Hibbard,	IV	41	30.7	28.1	91.5
	10	Florence M. Leary,	IV	41	33.8	31.4	92.8
	12	Helen E. Lewis,	III	32	33.2	30.8	92.8
	13	Elizabeth M. Lyman,	II	40	34.4	32.2	93.6
	16	Mary E. Bugbee,	I, II	35	33.6	30.6	91.0
	15	Susan S. Ranney,	I	67	34.8	30.8	88.3
	11	Fannie Hall,	Gram. Prep.	21	16.4	14.7	89.6
Myrtle Street, Indian Orchard,		Dwight Clark, Prin.,					
	6	Etta Sinsabaugh,	VIII, IX	52	45.4	43.9	96.7
	7	Mary C. Welch,	VII	42	32.7	30.8	94.1
	5	Ada M. Buchan,	VI	55	42.7	39.9	93.3
	9	Mary L. Wight,	V	38	32.1	30.3	94.3
	8	Fidelia M. Warriner,	V	39	33.9	31.5	92.9
	10	Susie I. Merrill,	IV	36	33.5	31.4	93.7
	4	Anne M. O'Keefe,	III	39	31.9	29.4	92.1
	3	Harriet O. Rockwell,	II	41	35.7	32.7	91.5
	2	Theresa M. Gilday,	I, II	38	33.7	30.9	91.6
	1	Alice E. Childs,	I	63	39.1	34.8	89.0
East Main St., Indian Orchard,	6	Mrs. Harriet A. White, Prin.,	IV	46	30.8	29.8	95.1
	3	Mary E. Richardson,	III	40	33.3	30.6	92.0
	2	Lillian H. Nield,	II	34	28.1	25.4	90.4
	1	Grace E. Lewis,	I	58	39.0	34.3	87.9
Jefferson Avenue,	9	Mary E. O'Neill, Prin., Mary E. Donica, Asst.,	IV, V	44	41.8	39.2	93.7
	6	Adah M. Judd,	IV	44	40.4	36.9	91.3
	5	Della B. Knappe,	III, IV	48	42.7	39.4	92.2
	4	Flora B. Dickinson,	III	47	43.8	40.1	91.6
	7	Calista Roy,	II	40	37.5	34.5	92.0
	3	Georgia Houston,	II	35	31.9	28.3	88.7
	8	Marcia L. Palmer,	I	5	29.0	25.2	86.9
	2	Annie E. Roberts,	I	65	39.4	33.8	85.7
	1	Harriet P. Dow,	I	47	38.0	34.0	89.2

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Kensington Avenue,	7	Annie M. Billings, Prin.,	V	43	42.4	40.7	95.9
		Olive A. Starkweather, Asst.,					
	15	Alice M. Bowen,	IV, V	53	41.1	38.7	94.1
	6	Ethel R. Babb,	IV	52	41.5	38.8	93.4
	5	Caroline B. Woods,	IV	41	40.3	37.5	93.0
	14	Ruby F. Bothum,	III, IV	10	35.7	32.4	90.7
	17	Emma L. Schrader,	III	44	41.7	38.9	93.2
	18	Olive A. Rainey,	II	40	38.6	35.1	90.9
	16	Mary A. Barnum,	II	46	39.7	36.6	92.1
	4	Emma E. Winslow,	II	40	34.9	31.9	91.4
	9	Eva H. Raymond,	I	40	39.5	36.6	92.6
	8	Helen M. Bates,	I	70	42.3	38.3	36.2
Lincoln,		Anna L. Rice, Prin.,					
	7	Mary H. Garvey,	VII	39	37.5	35.5	94.7
	8	Fern E. Devendorf,	VI, VII	42	33.1	30.2	91.2
	4	Margarette J. Murphy,	VI	46	36.4	34.6	95.1
	3	Florence E. Crozier,	V, VI	43	37.0	34.2	92.4
	12	Nora A. Donohue,	V	41	36.3	33.7	92.8
	11	Mabel L. Welcker,	V	38	37.0	34.2	92.4
	10	Mary E. Peissner,	IV	44	37.2	34.4	92.5
	9	Effie E. Littlefield,	IV	44	35.5	32.9	92.7
	6	Mary C. Griggs,	III	46	41.6	38.5	92.7
	5	Grace M. Parkinson,	II	53	38.7	36.2	93.5
	2	Queenie Tomlin,	I, II	51	37.9	34.4	90.8
	1	A. Genevieve Lord,	I	61	38.8	34.9	89.9
School Street,	4	Helen R. Davidson, Prin.,	V, VI	34	27.9	26.7	95.7
	3	Lucy A. Talmadge,	IV	41	31.1	29.3	94.2
	2	Sylvia Sylvester,	II, III	51	42.1	39.4	93.7
	1	Mary I. Fussell,	I, II	46	34.1	31.6	92.4
Sixteen Acres,	1	Mary E. Coburn,	V–IX	15	13.4	13.2	98.4
	2	Ines Ingraham,	I–V	21	15.9	14.6	91.6
South Main St.,	12	Elizabeth A. Beggs, Prin.,	V	37	34.7	32.5	93.6
		Anna B. Dougan, Asst.,					
	8	Helen C. Sharpe,	V	38	36.5	34.6	94.8
	9	Nellie A. Ryan,	IV	45	40.0	38.1	95.2
	7	Elizabeth O. Stevens,	III, IV	41	38.2	36.0	94.1
	6	Caroline E. Comins,	III	43	39.0	36.5	93.5
	4	Anna E. Alderman,	II, III	43	39.0	36.5	93.6
	5	Mabel L. Bradford,	II	42	37.8	34.9	92.3
	1	Edith B. Robson,	I, II	38	39.0	35.9	91.9
	3	Clarinda C. Kibbe,	I	46	38.1	32.1	84.4
	2	Ella A. Maryott,	I	75	39.4	34.4	87.3
	10	Chloe St. John,	Gram. Prep.	26	19.2	18.0	93.7
State Street,		Harriet C. Emerson, Prin.,					
	7	Harriet P. McPherson,	IX	31	33.0	30.9	93.6
	6	Mary E. Richardson,	IX	43	37.9	36.2	95.0
	5	Ethel G. Pemberton,	IX	25	24.4	22.2	90.9
	2	Mary E. Bloomer,	IX	38	36.1	33.8	93.6
	1	A. Mabel Cobb,	IX	29	28.0	26.8	95.6
	15	Edith A. Bragdon,	VIII	41	34.6	33.0	95.5
	14	Edith S. Roswell,	VIII	45	39.5	37.6	94.9
	13	Minnie C. Potter,	VIII	31	28.6	26.9	94.1
	10	Bessie H. Tucker,	VIII	27	25.2	24.0	95.3
	9	Elizabeth H. Craig,	VIII	39	38.7	36.5	94.3
	8	Josephine A. Lane,	VIII	26	29.0	27.8	95.8

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
State Street, (*Continued*)	22	Sylvina C. Norton,	VII	41	31.8	28.8	92.0
	4	Alice C. Reed (opened Feb. 6),	VII	0	22.0	19.8	90.0
	16	Jennie E. Livermore,	Drawing				
	3	H. Czarina Stacy,	Music				
Strickland,	6	Josephine C. Foster, Prin., Ruth P. Clark, Asst.,	IV	32	34.0	32.2	94.7
	3	Frances C. Pease,	IV	44	35.6	34.1	95.7
	5	Susan L. White,	III	35	32.7	31.2	95.0
	4	Kate L. Colton,	II, III	38	37.8	34.4	91.0
	2	Anna E. Wilcox,	I, II	34	40.0	36.8	92.0
	1	Helen S. Garrett,	I	33	48.1	42.9	89.2
Tapley,	14	Addie McKechnie, Prin., Edith R. Cope, Asst.,	VI	43	37.6	35.6	92.0
	8	S. Mabel Prescott,	VI	37	36.0	33.8	93.8
	13	Edith A. Harvey,	V	42	36.2	33.7	93.0
	4	Maud M. Stoddard,	V	40	36.3	33.8	93.1
	12	Marie Mache,	IV	42	34.3	31.7	92.3
	7	Winifred M. Scott,	III, IV	45	36.4	33.1	90.9
	11	Rebecca C. Currier,	III	43	36.5	34.0	93.1
	3	Jennie C. Prentice,	II, III	43	37.2	34.3	93.5
	2	Gertrude Mullins,	II	45	37.4	34.6	92.4
	1	Gail Kingsley,	I, II	4	32.0	27.8	86.9
	10	Ida E. Toole,	I	42	35.3	31.9	90.4
	9	Emily F. Ellis,	I	31	40.2	34.4	85.5
White Street,	2	Julia E. Steere, Prin., Helen P. Mahoney, Asst.,	VI	55	42.3	40.4	94.4
	7	Eva M. Sadd,	V	50	41.9	39.6	94.5
	10	Mabel A. Pease,	IV	50	39.4	36.9	93.7
	8	Susan C. Pease,	IV	39	35.7	33.7	94.3
	5	Wilhelmine Gutberlet,	III, IV	50	40.5	37.3	92.1
	9	Florence E. Randall,	II, III	43	37.0	34.0	91.9
	6	Alys Johnson,	II	47	40.6	36.8	90.6
	4	Elizabeth Bingham,	I, II	48	41.1	36.5	88.8
	3	Anna L. Gilmartin,	I	31	39.1	34.0	86.9
	1	Elizabeth A. Garfield (opened Feb. 6),	I	1	33.3	27.3	80.8
William Street,	12	Louise F. Elwell, Prin., S. Christine Webster, Asst.,	IV	37	37.9	36.0	94.9
	11	Ellen E. Morrissey,	III	46	37.3	35.7	94.4
	3	Mrs. Lillie M. Speer,	III	42	40.3	38.4	94.1
	6	Theresa A. Forg,	II	41	41.5	38.6	93.0
	4	Cora E. Chapin,	II	44	41.6	38.2	91.3
	7	Minnie J. Fitzgerald,	I, II	44	40.0	36.2	90.0
	10	Fannie A. Lewis,	I	46	40.3	36.4	90.3
	9	Louise Clark,	I	51	40.2	35.0	87.0
	8	Florence B. Humpage,	I	69	41.3	35.2	85.2
	5	Elizabeth M. Cahill,	Gram. Prep.	33	21.2	18.7	88.1
Worthington Street,		Frank W. Doane, Prin.,					
	11	Mildred Ketchum,	VII	34	33.2	31.4	94.6
	10	Lilla E. McLeod,	VI	42	37.2	35.0	94.1
	9	Anna B. Fenton,	V	33	30.3	28.6	94.4
	8	Florence G. Stevens,	IV, V	33	30.2	28.0	92.7
	7	Carolyn M. Lewis,	IV	34	34.0	31.9	93.8
	6	Minna Wilkinson,	III, IV	39	33.3	31.4	94.3
	5	Una L. Bangs,	III	33	35.0	33.1	94.4

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Worthington Street, (*Continued*)	4	Gertrude H. Rand,	II	39	33.0	30.5	92.4
	3	Ruth M. French,	II	41	35.4	32.3	91.5
	2	Sarah C. Edgar,	I	41	38.1	35.3	92.7
	1	Mary E. Elland,	I	76	39.5	34.6	87.6
		KINDERGARTENS.					
Armory Street,		Mary E. Spooner, Violette I. Loring, Asst.,		83	36.8	28.1	76.3
Brightwood,		Adelaide H. Robertson, Margaret M. Muller, Asst.,		106	48.6	38.4	79.0
Central Street,		Anna T. Shaw, Edith B. Tower, Asst.,		60	39.5	34.0	86.1
Eastern Ave.,		May L. Price, Elizabeth Bangs, Asst.,		67	33.9	29.2	86.1
East Union St.,		Mrs. M. Louise Stock, Josephine L. Falvey, Asst.,		76	36.6	29.6	80.8
Forest Park,		Grace H. Bowers, J. Selma Schniewind, Asst.,		81	34.7	27.8	80.0
Homer Street,		Lulu A. J. Allen, Lola J. Macartney, Asst.,		60	38.1	30.8	80.8
Hooker,		Clara M. Lewis, Frances J. Maracek, Asst., Grace B. Hamman, Asst.,		153	67.1	51.7	77.0
Howard Street,		Anna R. Quilty, Rachel A. Jones, Asst.,		95	49.3	36.4	73.8
Myrtle Street, Indian Orchard,		Mary A. Bassett, Anna E. Nield, Asst.,		69	40.4	37.2	92.0
East Main St., Indian Orchard,		Mary A. Bassett, Anna E. Nield, Asst.,		92	49.5	46.5	94.0
Jefferson Ave.,		Ora L. Batcheider, Alice E. Allen, Asst.,		112	59.4	45.1	75.9
South Main St.,		Frances M. Page, Helen E. Childs, Asst.,		87	50.6	39.3	77.6
Tapley,		M. Josephine Barry, Ethel F. Graves, Asst.,		70	53.6	47.0	87.5
White Street,		A. Ethel Loynes, Elsie M. Moore, Asst.,		87	43.4	34.4	79.2
William Street,		A. Archer Hunt, Nella M. Stockwell, Asst., Louise Collins, Asst.,		158	68.4	57.4	83.9

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
		EVENING SCHOOLS.					
High,		Carlos B. Ellis, Prin., Wilbur C. Batchelor, Mrs. Louise M. Bullman, Bertha W. Burnham, Charles A. Campbell, Margaret Cunningham, Anna S. Danforth, Clarence M. Hall, Georgia A. Hodskins, Evered E. Kent, W. Edward Lamb, Will W. Macalpine, Louis Marchand, Pauline C. Melius, Robert L. Munson, Alfred E. Preble, Harry A. Thomas, Charles J. Weston, Mildred F. Wheeler,		729	362.9	272.7	75.1
Preparatory Class,		Ethel A. Ronaldson, Katherine Murphy, Mary C. Welch,		186	74.2	50.1	67.5
Chestnut St.,		Arthur T. Talmadge, Prin., Mrs. Amy U. W. Bagg, M. Josephine Barry, Mrs. Kathleen Crowley, Martha R. Devine, Mary E. Donica, Genevieve Dowling, M. Bertha Holmes, Jennie Hurwitz, Mrs. Anna L. Jackson, P. F. Mansfield, Mrs. Ruby C. Maynard, Mrs. Clara M. Pepper, Ellen C. Pratt, Eliza V. Sprague, Mrs. Harriet E. Todd, Elsie E. Willard,		511	219.6	150.9	68.7
Howard Street,		John R. Fausey, Prin., Mrs. Ina M. Allen, Mrs. Elizabeth F. Bogart, Mary E. Bugbee, Mrs. Clara M. Bush, Alberta Campbell, Alice E. Childs, Mary Clune, Theresa M. Gilday, Agatha Healey, A. Archer Hunt, Fannie A. Lewis, Silvio Martinelli, Thomas F. McGlynn,		570	257.1	184.5	71.7

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SCHOOLS.	Rooms.	TEACHERS.	GRADES.	Number Registered.	Average Membership.	Average Attendance.	Per cent of Attendance.
Howard Street, *(Continued)*		Mrs. Lily H. Morrow, Jennie S. Perry, Samuel E. Pond, Annie P. Purdy, Edith B. Robson, Emma L. Schrader,					
Indian Orchard,		Mrs. Harriet A. White, Prin., Ferdinand Courlieux, Abbie Ferris, Mrs. Grace E. Hawkins, Mrs. Jean R. Irwin, Blanche E. Johnson, Grace E. Lewis, Violette I. Loring, Mrs. Martha J. Luce, Ada M. Meeker, Lillian H. Nield, Frances E. Pease,		202	106.2	82.9	78.0
Evening Trades,		Charles F. Warner, Prin.,					
		Harry W. Giffin,	Mech.Drwg.	133	88.9	69.5	78.2
		Burton A. Adams, Edward E. Holton,	Mach. Shop.	111	87.9	80.7	91.8
		Fred J. Hart, Charles H. Wilcox,					
		Edward H. Goodrich,	Electricity	36	24.2	21.1	87.2
		Clifford S. Bragdon,	Math'mats	42	26.7	22.6	84.7
		George D. Orner, Edwin A. Finch,	Wood Work	22	14.4	11.4	89.2
		Frank W. Tower,	Plumbing	45	35.0	29.1	83.1
		Ernest G. Bates, Sara J. MacLeod,	Cooking	14	11.6	9.6	82.7
		Elizabeth M. Morton,	Dr'smm'k'g	57	44.8	36.1	80.6
		Mrs. Jennie E. Bush, Blanche Withee, Fred M. Watts,	Arts	21	15.6	11.2	71.8
		C. Edward Newell,	Freehand	44	24.3	17.2	70.8
		Mrs. Lena E. Jordan,	Drawing.				

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SUMMARY OF STATISTICS

For the School Year Ending June 30, 1911.

SCHOOLS.	No. of Schoolrooms.	No. of Teachers.	No. of Pupils Registered.	Average No. Belonging.	Av. No. Pupils to a Room.	Av. No. Pupils to Teacher.	Av. Daily Attendance.	Per cent of Attendance.	Half Days of Truancy.	Corporal Punishments.
Central High	16	39	*727	709.2	44.3	18.1	665.8	93.9	0	0
H. S. of Commerce	11	16	*417	384.9	34.9	24.0	361.8	94.0	0	0
Technical High	17	40	*578	555.4	32.6	13.8	531.0	95.6	3	0
Vocational	2	5	62	61.0	30.5	12.2	55.5	90.9	92	2
Alden Street	4	4	150	135.9	33.9	33.9	127.4	93.7	1	29
Armory Street	16	17	667	591.0	36.9	34.1	544.8	92.1	17	40
Barrows	9	10	338	319.3	35.4	31.9	303.7	95.1	19	20
Belmont Avenue	4	4	186	149.8	37.4	37.4	133.1	88.8	3	2
Boston Road	3	3	116	96.8	32.2	32.2	88.8	91.7	3	5
Brightwood	7	8	274	233.7	33.3	29.7	212.8	91.0	5	27
Buckingham	11	12	480	451.0	41.0	37.5	424.6	94.1	49	7
Carew Street	14	15	582	491.7	35.1	32.7	447.7	91.5	39	10
Central Street	13	14	557	511.1	39.3	36.5	481.1	94.1	33	11
Charles Street	4	4	164	135.0	33.7	33.7	125.0	92.6	8	10
Chestnut Street	30	33	1,233	1,101.3	36.7	33.3	1,032.1	93.7	69	58
Dry Bridge	1	1	25	24.1	24.1	24.1	21.8	90.4	0	0
Eastern Avenue	6	7	260	222.7	37.1	31.8	210.0	94.2	5	35
East Union Street	7	8	298	235.8	33.6	29.4	215.6	91.4	12	23
Five Mile Pond	1	1	32	20.4	20.4	20.4	18.3	89.8	0	0
Forest Park	14	16	555	510.7	36.4	31.8	479.4	93.8	36	3
Glenwood	2	2	61	53.8	26.9	26.9	49.4	91.8	1	4
Homer Street	8	9	374	322.1	40.2	35.7	296.6	92.0	17	15
Hooker	13	14	577	471.9	36.3	33.7	436.9	92.5	45	42
Howard Street	16	17	634	529.2	33.0	31.1	491.5	92.8	56	39
I. O. Grammar	10	11	443	360.7	36.0	32.7	335.6	93.0	35	21
I. O. Primary	4	4	173	131.2	32.8	32.8	119.6	91.1	6	30
Jefferson Avenue	9	10	375	344.5	38.2	34.4	311.4	90.4	8	6
Kensington Avenue	11	12	479	437.7	39.7	36.4	403.5	92.1	21	27
Lincoln	12	13	548	447.0	37.2	34.3	413.7	92.5	7	14
School Street	4	4	172	135.2	33.8	33.8	127.0	93.9	0	0
Sixteen Acres	2	2	36	29.3	14.6	14.6	27.8	94.8	0	2
South Main Street	11	12	474	400.9	36.4	33.4	369.5	92.1	24	9
State Street	13	16	416	397.3	30.5	24.8	374.4	94.2	28	16
Strickland	6	7	266	228.2	38.0	32.6	211.6	92.7	59	28
Tapley	12	13	507	435.4	36.2	33.4	399.2	91.6	5	20
White Street	10	11	464	374.0	37.4	34.0	342.8	91.6	24	38
William Street	10	11	458	382.6	38.2	34.7	348.4	91.0	66	56
Worthington Street	11	12	460	379.2	34.4	31.6	352.1	92.8	26	10
Total	354	437	14,618	12,801.0	36.1	29.3	11,891.3	92.8	822	659
Kindergartens	16	32	1,456	749.9			612.9	81.7		
All Day Schools	370	469	16,074	13,550.9			12,504.2	92.2		
Evening Schools		90	2,673	1,393.4			1,049.6	75.3		

*There were 86 pupils enrolled in the Central High School, 63 in the High School of Commerce, and 91 in the Technical High School, who had previously been enrolled in the grammar schools, thus making the total number of different pupils during the year attending

Central High School,	813
High School of Commerce,	480
Technical High School,	669

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ANNUAL REPORT OF

TRUANT OFFICER.

To the School Board:—

Number of visits to stores and factories, ... 32

Number of children found illegally employed, ... 35

Number of visits to school buildings, ... 1,727

Number of cases reported from schools, ... 10,407

As follows: For absence, 9,440; truancy, 581; tardiness, 269; habitual absentees, 4; non-attendants, 29; school offenders, 6; evening school pupils, 78.

Number of children found about the streets, ... 376

Upon investigation it was found that 194 were absentees; 60 were truants; 13 were tardy children; 20 were habitual absentees; 89 were non-attendants.

Of the children found about the streets, 180 absentees, 37 truants, 20 habitual absentees, 89 non-attendants, 1 tardy child, were taken to their homes; and 14 absentees, 23 truants, 12 tardy children, were taken to school.

Number of visits to homes, ... 12,374

Divided as follows: For absentees, 11,035; truants, 695; tardiness, 295; habitual absentees, 39; non-attendants, 161; school offenders, 9; evening school pupils, 140.

Number of individual absentees, ... 3,859

Heads of families warned that they would be prosecuted unless their children were sent to school regularly, . 35

Heads of families prosecuted for neglecting to cause children under their control to attend school regularly, . 3

Number of children not attending any school, . . . 116

Of these 29 were reported from various sources; and 87 were discovered by the Attendance Officers. These cases have been disposed of as follows: 105 have entered school; 4 were sick and physician's certificates were furnished; 7 have left town.

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Number of habitual absentees, ... 22
Number of individual children whose names appeared on the Attendance Officers' record for the year, . . . 4,202

TABULATED RECORD OF TRUANCY.

SCHOOLS.	Pupils Truant.	Truancies.	Days of Truancy.	Prosecuted as Habitual Truants.	Committed to the Training School.	Cases continued from day to day for Sentence.
Central High	6	10	21½			
High School of Commerce	3	3	2			
Technical High	3	3	2			
Vocational	11	23	45½			
Alden Street	1	1	½			
Armory Street	2	3	2½			
Barrows	11	14	10½			
Belmont Avenue	1	1	1½			
Boston Road	3	3	2			
Brightwood	5	5	2½			
Buckingham	21	31	32			
Carew Street	16	23	18½			
Central Street	17	21	17			
Charles Street	4	5	4			
Chestnut Street	44	83	55	2	1	1
Dry Bridge						
Eastern Avenue	5	6	3			
East Union Street	3	5	4½	1	1	
Five Mile Pond						
Forest Park	15	24	23½			
Glenwood	1	1	½			
Homer Street	6	10	8			
Hooker	29	39	28			
Howard Street	42	57	35	2	1	1
Indian Orchard Grammar	11	17	16½			
Indian Orchard Primary	4	6	3½			
Jefferson Avenue	2	3	3			
Kensington Avenue	5	9	7			
Lincoln	6	7	4			
School Street						
Sixteen Acres						
South Main Street	20	23	12			
State Street	19	25	25			
Strickland	8	33	28	1	1	
Tapley	3	3	2			
White Street	5	10	12			
William Street	38	56	34			
Worthington Street	18	22	17½			
Carew Special	1	2	1½			
Private Schools	73	122	168	1	1	
Between Schools	6	6	27½			
Totals	468	717	676	7	5	2

Eleven were truant from two schools, leaving 457 children who were truant during the year.

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This report of the work of the Truant Officers (or attendance officers as they should more properly be named) covers the school year ending June 30, 1911, before I again assumed charge of the work. It shows a good year's work and I wish to say many people have spoken to me in praise of the efficiency of my predecessor.

Returning after an absence of nearly nine years, it has been interesting to find that a number of families that needed attention previous to that time still have to be looked after vigorously in order to have the younger children attend school with any degree of regularity, showing that it is hard to reform parents. On the other hand many of the boys who attended school during my previous service are anxious to have their younger brothers and sisters attend school properly. A number of them have been to see me in this connection, one young man asking me to always see his father when his brother was out of school because his mother would lie to protect the brother just as she did for him and he said that he now regretted that she did so.

My absence has added a perspective which makes some things stand out even more clearly. One of these is that in most of the chronic cases where parents neglect to send their children to school regularly the work we are able to do is only superficial. What is needed is a person with time to maintain such close relations with the family that he can make the children serve as an incentive to better living and who shall also have the ability to show how this is possible. The conditions under which many of the families are obliged to live would tax a person of great resource and ingenuity to keep up anything like a decent standard and of course are entirely too much for the poor untrained persons who have to grapple with them; yet the foundation for the proper education of children must be found in a good home.

The state schooling laws and those relating to the employ-

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ment of children have been amended so many times that the different sections do not fit together and need a thorough overhauling and codification.

I find that the work has increased considerably, partly due to the increase in the school population and partly to the work of the medical inspectors, which, while an excellent thing, entails extra work to see that pupils who are excluded from school receive proper attention and return to school promptly. Having the clerical work done by a member of the office force, however, saves considerable work for the truant officers. I desire to say here a word in praise of the efficient services of Miss Pinney, who has charge of our records, the issuing of "age and schooling" and employment certificates, the sending of notices of contagious diseases and other matters connected with our work. When the new offices are occupied, I trust that the clerk having charge of our part of the work may be located more conveniently to our office and have no other duties during the school year, for much depends upon the promptness with which we are able to return to the schools reports of our investigations.

Respectfully submitted,

JOHN A. PARKER,

Truant Officer.

December 29, 1911.

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REPORT OF

SCHOOLHOUSE AGENT FOR 1911.

SPRINGFIELD, MASS., December 15, 1911.

To His Honor, The Mayor, and City Council.

GENTLEMEN:—In compliance with the City Ordinances, I herewith submit the annual report of expenditures of this department for the year beginning December 1, 1910, and ending November 30, 1911.

SCHOOLHOUSE REPAIRS.

Alden Street School:		
Carpenter labor and material,	$19 68	
Painting and glazing,	101 33	
Snow guards,	43 00	
Ordinary repairs,	44 47	
		$208 48
Armory Street School:		
Bell and telephone repairs,	$68 62	
Boiler and steam repairs,	108 88	
Carpenter labor and material,	50 35	
Cooking school kitchen complete,	242 85	
Drain from boiler,	217 93	
Furniture, shades and mats,	317 01	
Plumbing repairs,	78 74	
Roof and ceiling repairs,	49 43	
Weather strips,	57 00	
Ordinary repairs,	74 14	
		1,264 95
Amount carried forward,		$1,473 43

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Amount brought forward, . .		$1,473 43
Barrows School:		
Bell and telephone repairs, . . .	$58 42	
Blackboards, ...	143 45	
Boiler, steam and ventilation repairs,	46 27	
Carpenter labor and material, . .	45 78	
Furniture, shades and mats, . .	89 09	
Painting and glazing, ...	122 84	
Roof and gutter repairs, . . .	27 97	
Teachers' rest room, ...	145 48	
Ordinary repairs, ...	44 40	
		723 70
Belmont Avenue School:		
Carpenter labor and material, . .	$31 97	
Furnace and plumbing repairs, . . .	103 95	
Painting and glazing, ...	39 67	
Ordinary repairs, ...	28 95	
		204 54
Boston Road School:		
Carpenter labor and material, . .	$115 97	
Flag pole, ...	92 69	
Furnace and boiler repairs, . . .	199 79	
Furniture, ...	176 49	
Ordinary repairs, ...	64 59	
		649 53
Brightwood School:		
Boiler tubes and boiler repairs, . . .	$242 08	
Carpenter labor and material, . .	72 87	
Furniture, shades and mats, . .	45 53	
Painting and glazing, ...	94 27	
Plumbing repairs, ...	27 46	
Roof repairs, ...	28 10	
Ordinary repairs, ...	22 38	
		532 69
Amount carried forward, . .		$3,583 89

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Amount brought forward, . .		$3,583 89
Buckingham School:		
Bell repairs, ...	$99 76	
Blackboards, ...	44 96	
Carpenter labor and material, . .	77 59	
Furnace repairs, ...	26 35	
Furniture, shades and mats, . .	217 85	
Painting and glazing, ...	62 15	
Plumbing repairs, ...	43 14	
Ventilation areas and railing, . .	312 64	
Ordinary repairs, ...	55 04	
		939 48
Carew Street School:		
Blackboards, ...	$47 28	
Carpenter labor and material, . .	53 47	
Furnace and heating repairs, . .	97 35	
Furniture, shades and mats, . .	59 19	
Gas fixtures, ...	55 35	
Painting and glazing, ...	372 16	
Roof repairs, ...	70 75	
Ordinary repairs, ...	46 16	
		801 71
Carlisle School:		
Ordinary repairs, ...		5 14
Central Street School:		
Bell and telephone repairs, . . .	$43 64	
Blackboards, ...	22 00	
Carpenter labor and material, . .	84 06	
Electric light wiring and fixtures, .	309 96	
Flag pole, ...	49 06	
Furniture, shades and mats, . .	31 30	
Painting and glazing, ...	253 92	
Plumbing and roof repairs, . . .	59 45	
Ventilation, steam, boiler and heating repairs, ...	86 51	
Ordinary repairs, ...	46 44	
		986 34
Amount carried forward, . .		$6,316 56

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Amount brought forward, . .		$6,316 56
Charles Street School:		
Boiler, heating and motor repairs, .	$76 75	
Carpenter labor and material, . .	21 66	
Painting and glazing, ...	108 71	
Plumbing repairs, ...	29 28	
Ordinary repairs, ...	26 96	
		263 36
Chestnut Street School:		
Bell and telephone repairs, . . .	$38 62	
Boiler, steam and heating repairs, .	208 61	
Carpenter labor and material, . .	96 13	
Concrete floor, ...	89 04	
Furniture, shades and mats, . .	70 58	
Painting and glazing, ...	61 82	
Roof and gutter repairs, . . .	97 05	
Water ejector, ...	20 00	
Ordinary repairs, ...	45 28	
		727 13
Dry Bridge School:		
New floor, ...	$77 93	
Ordinary repairs, ...	14 24	
		92 17
Eastern Avenue School:		
Bell and telephone repairs, . . .	$44 00	
Carpenter labor and material, . .	19 92	
Furnace and heating repairs, . .	26 42	
Painting and glazing, ...	115 02	
Plumbing and roof repairs, . . .	91 38	
Radiators, ...	200 45	
Transformer, ...	44 67	
Ordinary repairs, ...	51 12	
		592 98
Amount carried forward, . .		$7,992 20

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Amount brought forward, . .		$7,092 20
East Union Street School:		
Blackboards, ...	$21 40	
Boiler and steam repairs, . . .	57 07	
Carpenter labor and material, . .	66 35	
Installation of bath room, . . .	676 75	
Mason work, ...	45 90	
Painting and glazing, ...	125 00	
Roof repairs, ...	28 38	
Ordinary repairs, ...	68 36	
		1,089 21
Emery Street Building (storehouse):		
Ordinary repairs, ...		9 10
Five Mile Pond School:		
Ordinary repairs, ...		20 33
Forest Park School:		
Bell and telephone repairs, . . .	$59 92	
Blackboards, ...	53 13	
Boiler, heating and ventilation repairs,	34 44	
Carpenter labor and material, . .	54 04	
Furniture, shades and mats, . .	186 05	
Painting and glazing, ...	125 76	
Plumbing and roof repairs, . . .	69 18	
Ordinary repairs, ...	27 51	
		610 03
Glenwood School:		
Flag pole, ...	$31 73	
Heating repairs, ...	17 31	
Ordinary repairs, ...	30 21	
		79 25
Amount carried forward, . .		$9,800 12

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Amount brought forward, . .		$9,800 12
High School (Central):		
Bells, electrical work and supplies, .	$302 33	
Boiler room and boiler repairs, . .	569 30	
Carpenter labor and material, . .	337 76	
Furniture, shades and mats, . .	195 92	
Gas piping in Science department, .	57 55	
Heating, ventilation and steam repairs,	216 55	
Installation of new stokers, . . .	2,378 00	
Painting and glazing, ...	207 79	
Plumbing repairs, ...	235 67	
Ordinary repairs, ...	111 55	
		4,612 42
High School (Technical):		
Bell and telephone repairs, . . .	$154 53	
Blackboards, ...	57 73	
Boiler and steam repairs, . . .	353 52	
Carpenter labor and material, . .	132 42	
Electric light fixture repairs, . .	133 61	
Engine room supplies, ...	80 69	
Furniture, shades and mats, . .	123 18	
Motor repairs, ...	129 45	
Painting and glazing, ...	107 03	
Plumbing repairs, ...	321 97	
Vocational School, ...	173 00	
Ordinary repairs, ...	97 10	
		1,864 23
Homer Street School:		
Bell and telephone repairs, . . .	$40 35	
Blackboards, ...	37 31	
Boiler, steam and heating repairs, .	33 36	
Carpenter labor and material, . .	24 32	
Painting and glazing, ...	145 79	
Slate urinal, ...	86 68	
Weather strips, ...	63 00	
Ordinary repairs, ...	43 97	
		474 78
Amount carried forward, . .		$16,751 55

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Amount brought forward,		$16,751 55
Hooker School:		
Blackboards,	$34 41	
Boiler, steam and heating repairs,	47 72	
Carpenter labor and material,	25 45	
Fence,	90 16	
Furniture, shades and mats,	30 10	
Painting and glazing,	54 98	
Roof and gutter repairs,	55 18	
Ordinary repairs,	75 07	
		413 07
Howard Street School:		
Baths,	$683 49	
Bell and telephone repairs,	24 95	
Boiler, steam and heating repairs,	133 50	
Carpenter labor and material,	90 79	
Furniture, shades and mats,	33 42	
Motor repairs,	39 55	
Painting and glazing,	177 03	
Plumbing repairs,	93 86	
Ordinary repairs,	59 07	
		1,341 66
Indian Orchard Myrtle Street School:		
Carpenter labor and material,	$45 50	
Electric light repairs,	56 92	
Metal ceiling and railing,	32 44	
Painting and glazing,	52 63	
Ventilation and motor repairs,	62 49	
Ordinary repairs,	84 10	
		334 08
Indian Orchard Main Street School:		
Bell and telephone repairs,	$31 04	
Bulkhead and basement entrance,	89 94	
Carpenter labor and material,	20 61	
Furniture,	57 83	
Heating and plumbing repairs,	53 50	
Ordinary repairs,	69 80	
		322 72
Amount carried forward,		$19,163 08

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Amount brought forward, . .		$19,163 08
Jefferson Avenue School:		
Boiler and heating repairs, . . .	$56 80	
Painting and glazing, ...	49 61	
Ordinary repairs, ...	68 50	
		174 91
Kensington Avenue School:		
Boiler and heating repairs, . . .	$34 85	
Carpenter labor and material, . .	26 71	
Painting and glazing, ...	23 51	
Ordinary repairs, ...	16 53	
		101 60
Lincoln School:		
Ordinary repairs, ...		68 31
School Street School:		
Carpenter labor and material, . .	$30 29	
Painting and glazing, ...	22 76	
Roof and gutter repairs, . . .	78 75	
Steam and ventilation, ...	47 27	
Ordinary repairs, ...	21 97	
		201 04
Sixteen Acres School:		
Artesian well, ...	$241 85	
Ordinary repairs, ...	51 37	
		293 22
South Main Street School:		
Bell and telephone repairs, . . .	$28 91	
Blackboards, ...	25 16	
Carpenter labor and material, . .	50 82	
Furniture, shades and mats, . .	31 63	
Motor repairs, ...	70 74	
Painting and glazing, ...	70 56	
Plumbing repairs, ...	51 09	
Ordinary repairs, ...	53 36	
		382 27
Amount carried forward, . .		$20,384 43

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Amount brought forward, . .		$20,384 43
State Street School:		
Bell and telephone repairs, . . .	$73 40	
Blackboards, ...	66 44	
Carpenter labor and material, . .	97 42	
Furniture, ...	82 89	
Painting and glazing, ...	133 85	
Roof repairs, ...	89 72	
Ordinary repairs, ...	81 60	
		625 32
Strickland School:		
Blackboards, ...	$69 99	
Carpenter labor and material, . .	44 61	
Furniture, shades and mats, . .	30 46	
Metal ceiling, ...	268 20	
Painting and glazing, ...	151 35	
Roof repairs, ...	97 22	
Steam and heating repairs, . . .	49 65	
Ordinary repairs, ...	60 68	
		772 16
Tapley School:		
Blackboards, ...	$21 89	
Carpenter labor and material, . .	44 24	
Furniture, ...	163 96	
Gates, ...	51 05	
Heating and boiler repairs, . . .	36 23	
Painting and glazing, ...	43 36	
Plumbing repairs, ...	45 83	
Ordinary repairs, ...	68 43	
		474 99
Wachogue School (not in use):		
Ordinary repairs, ...		3 95
Amount carried forward, . .		$22,260 85

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Amount brought forward, . .		$22,260 85
White Street School:		
Carpenter labor and material, . .	$21 03	
Painting and glazing, ...	26 37	
Repairing stone and brickwork, . .	26 40	
Roof repairs, ...	20 64	
Steam repairs, ...	34 00	
Ordinary repairs, ...	44 11	
		172 55
William Street School:		
Blackboards, ...	$33 47	
Boiler and heating repairs, . . .	47 23	
Carpenter labor and material, . .	27 70	
Painting and glazing, ...	36 98	
Ordinary repairs, ...	45 52	
		190 90
Worthington Street School:		
Bell and telephone repairs, . . .	$32 77	
Blackboards, ...	116 27	
Boiler repairs, ...	123 33	
Carpenter work and material, . .	64 31	
Painting and glazing, ...	202 93	
Plumbing repairs, ...	51 41	
Ordinary repairs, ...	68 63	
		659 65
Vernon Street Office Building:		
Ordinary repairs, ...		36 91
Shop tools:		21 19
Shop work and sundry labor: . . .		62 53
Miscellaneous items and supplies on hand:		54 25
Total expenditures, . . .		$23,458 83

By appropriation, . .	$25,350 00	
By receipts, ...	109 21	
	$25,459 21	
Total expenditures, .	23,458 83	
Balance unexpended, .	$2,000 38	

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SCHOOLS: CITY PROPERTY COMMITTEE.

Expenditures from December 1, 1910, to November 30, 1911.

Agent's and janitors' salaries,		$41,725 82
Evening School janitor service,		1,035 44
Extra janitor service,		433 03
Shoveling snow from walks,		411 45
Alden Street School:		
Fuel,	$267 37	
Light,	3 02	
Lawn and tools,	3 60	
Motor power,	8 40	
Sundries, furnishings,	21	
		282 60
Armory Street School:		
Fuel,	$721 51	
Light,	160 39	
Extra mopping (Kindergarten and Annex),	58 00	
Lawn and tools,	13 02	
Sundries, furnishings,	81	
		953 73
Barrows School:		
Fuel,	$488 71	
Light,	55 42	
Lawn and tools,	7 97	
Sundries,	2 51	
		554 61
Belmont Avenue School:		
Fuel,	$293 28	
Light,	12 28	
Lawn and tools,	3 42	
Sundries, furnishings,	40	
		309 38
Amount carried forward,		$45,706 06

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Amount brought forward, . . .		$45,706 06
Boston Road School:		
Fuel, ...	$447 90	
Light, ...	39	
Lawn and tools, ...	8 87	
		457 16
Brightwood School:		
Fuel, ...	$517 56	
Light, ...	12 80	
Extra mopping floors (Kindergarten),	26 40	
Lawn and tools, ...	6 61	
Sundries, furnishings, ...	70	
		564 07
Buckingham School:		
Fuel, ...	$817 40	
Light, ...	138 65	
Lawn and tools, ...	17 85	
Sundries, furnishings, ...	1 25	
		975 15
Carew Street School:		
Fuel, ...	$714 76	
Light, ...	21 22	
Lawn and tools, ...	8 97	
Sundries, furnishings, ...	2 88	
		747 83
Central Street School:		
Fuel, ...	$758 36	
Light, ...	33 11	
Extra mopping floors (Kindergarten),	26 40	
Lawn and tools, ...	6 65	
Sundries, furnishings, ...	1 38	
		825 90
Amount carried forward, . . .		$49,276 17

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Amount brought forward, . . .		$49,276 17
Charles Street School:		
Fuel, ...	$242 07	
Light, ...	1 08	
Lawn and tools, ...	6 17	
		249 32
Chestnut Street School:		
Fuel, ...	$2,001 09	
Light, ...	519 64	
Motor power, ...	326 73	
Extra mopping, ...	117 00	
Lawn and tools, ...	29 66	
Walks, ...	130 24	
Finishing up two extra rooms, . .	559 62	
Sundries, furnishings, ...	5 11	
		3,689 09
Dry Bridge School:		
Fuel, ...		29 67
Eastern Avenue School:		
Fuel, ...	$555 45	
Light, ...	13 70	
Extra mopping (Kindergarten), . .	26 40	
Fire extinguisher, ...	6 75	
Lawn and tools, ...	10 66	
Sundries, furnishings, ...	30	
		613 26
East Union Street School:		
Fuel, ...	$464 41	
Light, ...	12 94	
Motor power, ...	117 93	
Extra mopping (Kindergarten), . .	22 00	
Lawn and tools, ...	8 50	
Sundries, furnishings, ...	75	
		626 53
Amount carried forward, . . .		$54,484 04

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Amount brought forward, . . .		$54,484 04
Emery Street Storehouse:		
Light, ...	$2 28	
Labor and cartage, cleaning, . .	12 28	
		14 56
Five Mile Pond School:		
Fuel, ...		33 97
Forest Park School:		
Fuel, ...	$1,208 50	
Light, ...	119 46	
Motor power, ...	50 16	
Extra mopping (Kindergarten), . .	26 40	
Lawn, tools and grading, . . .	57 92	
Sundries, furnishings, ...	4 45	
		1,466 89
Glenwood School:		
Fuel, ...	$231 10	
Light, ...	5 32	
Lawn and tools, ...	3 08	
Sundries, furnishings, ...	08	
		239 58
High School (Central):		
Fuel, ...	$2,124 63	
Light, ...	1,463 23	
Motor power, ...	224 52	
Lawn and tools, ...	52 36	
Fire extinguishers, ...	55 00	
Sundries, furnishings, ...	6 76	
		3,926 50
High School (Technical):		
Fuel, ...	$2,178 00	
Light, ...	673 16	
Motor power, ...	108 00	
Custodian, ...	300 00	
Extra mopping floors, ...	184 85	
Lawn and tools, ...	36 11	
Sundries, furnishings, ...	11 69	
		3,491 81
Amount carried forward, . . .		$63,657 35

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Amount brought forward, . . .		$63,657 35
Homer Street School:		
Fuel, ...	$585 90	
Light, ...	6 41	
Extra mopping (Kindergarten), . .	25 00	
Lawn and tools, ...	8 91	
Sundries, furnishings, ...	2 60	
		628 82
Hooker School:		
Fuel, ...	$1,041 50	
Light, ...	76 87	
Extra mopping (Kindergarten), . .	26 40	
Lawn and tools, ...	16 07	
Sundries, furnishings, ...	1 33	
		1,162 17
Howard Street School:		
Fuel, ...	$664 41	
Light, ...	374 56	
Motor power, ...	240 90	
Extra mopping (Kindergarten), . .	22 00	
Fire extinguisher, ...	6 75	
Lawn and tools, ...	11 67	
Sundries, furnishings, ...	7 46	
		1,327 75
Indian Orchard Grammar School:		
Fuel, ...	$1,048 92	
Light, ...	79 80	
Motor power, ...	178 70	
Extra mopping (Kindergarten), . .	19 80	
Lawn and tools, ...	8 00	
Sundries, furnishings, ...	4 50	
		1,334 72
Amount carried forward, . . .		$68,110 81

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Amount brought forward, . . .		$68,110 81
Indian Orchard Primary School:		
Fuel, ...	$401 79	
Light, ...	83 30	
Extra mopping (Kindergarten), . .	19 80	
Lawn and tools, ...	5 86	
		510 75
Jefferson Avenue School:		
Fuel, ...	$485 17	
Light, ...	29 47	
Extra mopping (Kindergarten), . .	22 00	
Lawn and tools, ...	8 55	
Sundries, furnishings, ...	51	
		545 70
Kensington Avenue School:		
Fuel, ...	$482 21	
Light, ...	54 40	
Motor power, ...	156 90	
Lawn and tools, ...	4 46	
Sundries, furnishings, ...	3 45	
		701 42
Lincoln School:		
Fuel, ...	$713 84	
Light, ...	92 76	
Motor power, ...	58 14	
Lawn and tools, ...	7 64	
Sundries, furnishings, ...	40	
		872 78
School Street School:		
Fuel, ...	$336 29	
Light, ...	4 02	
Lawn and tools, ...	2 17	
Sundries, furnishings, ...	50	
		342 98
Amount carried forward, . . .		$71,084 44

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Amount brought forward, . . .		$71,084 44
Sixteen Acres School:		
Fuel, ...	$104 73	
Sundries, furnishings, ...	2 50	
		107 23
South Main Street School:		
Fuel, ...	$613 43	
Light, ...	39 74	
Motor power, ...	33 27	
Extra mopping (Kindergarten), . .	26 40	
Lawn and tools, ...	12 33	
Sundries, furnishings, ...	71	
		725 88
State Street School:		
Fuel, ...	$1,058 81	
Light, ...	340 09	
Lawn and tools, ...	18 34	
Sundries, furnishings, ...	3 20	
		1,420 44
Strickland School:		
Fuel, ...	$264 22	
Light, ...	18 98	
Fire extinguisher, ...	6 75	
Lawn and tools, ...	5 55	
Sundries, furnishings, ...	2 39	
		297 89
Tapley School:		
Fuel, ...	$678 80	
Light, ...	43 39	
Extra mopping (Kindergarten), . .	26 40	
Lawn and tools, ...	25 44	
Sundries, furnishings, ...	3 17	
		777 20
Wachogue School (unoccupied):		
Amount carried forward, . . .		$74,413 08

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Amount brought forward, . . .		$74,413 08
White Street School:		
Fuel, ...	$754 62	
Light, ...	21 48	
Motor power, ...	183 06	
Extra mopping (Kindergarten), . .	22 00	
Lawn and tools, ...	13 13	
Walks, ...	36 99	
Sundries, furnishings, ...	45	
		1,031 73
William Street School:		
Fuel, ...	$636 42	
Light, ...	66 59	
Motor power, ...	116 79	
Extra mopping (Kindergarten), . .	33 00	
Lawn and tools, ...	14 08	
Sundries, furnishings, ...	60	
		867 43
Worthington Street School:		
Fuel, ...	$527 46	
Light, ...	262 57	
Lawn and tools, ...	14 93	
Retaining wall, ...	339 57	
Sundries, furnishings, ...	6 52	
		1,151 05
Vernon Street Office:		
Fuel, ...	$192 42	
Light, ...	41 33	
Lawn hose, ...	4 00	
Ice, ...	10 92	
Sundries, furnishings, ...	1 75	
		250 42
Advertising coal, ...	$5 10	
Automobile, ...	387 02	
Boiler insurance, ...	337 50	
Amounts carried forward, ...	$729 62	$77,713 71

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Amounts brought forward, . .	$729 62	$77,713 71
Clerical work, ...	486 50	
Hose and grass seed on hand, . . .	26 25	
Liability insurance, ...	49 20	
Options on property for new Hooker School, ...	100 00	
Stationery, stamps and typewriter supplies, Schoolhouse Agent, . . .	50 05	
Stationery, books, stamps, etc., City Property Committee, ...	52 56	
Telephone rental and tolls, ...	38 18	
Typewriting, etc., ...	24 75	
Walks, Pecousic avenue, ...	369 35	
Miscellaneous, ...	14 75	
		1,941 21
Total expenditures, . . .		$79,654 92

By appropriation, . .	$80,300 00	
By receipts, ...	542 75	
By transfers, . . .	850 01	
	$81,692 76	
Total expenditures,	79,654 92	
Balance unexpended,	$2,037 84	

FUEL SUPPLIED TO SCHOOLS.

From December 1, 1910, to November 30, 1911.

	Coal (Pounds.)	Charcoal (Bushels.)
Alden Street School, ...	89,730	130
Armory Street School, ...	267,535	100
Barrows School, ...	181,605	60
Belmont Avenue School, ...	100,800	50
Boston Road School, ...	135,600	20
Brightwood School, ...	179,200	60
Buckingham School, ...	282,780	100

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	Coal (Pounds.)	Charcoal (Bushels.)
Carew Street School,	245,210	100
Central Street School,	280,220	125
Charles Street School,	83,260	40
Chestnut Street School,	783,410	225
Dry Bridge School,	8,960	22
Eastern Avenue School,	192,560	60
East Union Street School,	160,980	50
Five Mile Pond School,	11,200	16
Forest Park School,	449,195	150
Glenwood School,	81,990	106
High School (Central) and State Street Grammar School,	1,537,350	
High School (Technical),	1,168,730	
Homer Street School,	201,600	95
Hooker School,	393,045	150
Howard Street School,	243,080	120
Indian Orchard Grammar School,	391,220	100
Indian Orchard Primary School,	130,350	125
Jefferson Avenue School,	174,175	115
Kensington Avenue School,	247,610	130
Lincoln School,	372,750	100
School Street School,	112,000	40
Sixteen Acres School,	33,600	24
South Main Street School,	212,740	200
Strickland School,	97,300	50
Tapley School,	238,070	125
White Street School,	260,300	80
William Street School,	220,300	75
Worthington Street School,	192,045	100
Vernon Street Office Building,	67,200	10
	9,827,700	3,073

Expenditure for coal,	$24,235 18
Expenditure for charcoal,	432 90
Expenditure for wood,	20 00
	$24,688 08

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SUPPLIES FURNISHED JANITORS.

Alden Street School,	$16 78
Armory Street School,	59 02
Barrows School,	31 27
Belmont Avenue School,	13 70
Boston Road School,	19 63
Brightwood School,	38 27
Buckingham School,	45 71
Carew Street School,	65 87
Central Street School,	53 08
Charles Street School,	21 92
Chestnut Street School,	74 76
Dry Bridge School,	7 62
Eastern Avenue School,	37 44
East Union Street School,	20 57
Five Mile Pond School,	2 67
Forest Park School,	86 23
Glenwood School,	12 58
High School (Central),	214 37
High School (Technical),	196 02
Homer Street School,	32 96
Hooker School,	43 18
Howard Street School,	49 58
Indian Orchard Grammar School,	28 24
Indian Orchard Primary School,	17 51
Jefferson Avenue School,	31 49
Kensington Avenue School,	35 75
Lincoln School,	21 09
School Street School,	14 55
Sixteen Acres School,	7 93
South Main Street School,	37 97
State Street School,	87 78
Strickland School,	14 77
Tapley School,	56 80
White Street School,	31 64
William Street School,	46 79
Worthington Street School,	63 03
Vernon Street Office Building,	8 27
Vocational School,	8 45
	$1,655 29

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Amount brought forward, . . .		$1,655 29

SUPPLIES FURNISHED BATH ROOMS.

Armory Street School, ...	$10 80	
Chestnut Street School, ...	12 76	
East Union Street School, ...	15 66	
Hooker School, ...	34 06	
Howard Street School, ...	18 45	
William Street School, ...	29 68	
Worthington Street School, ...	26 02	
		147 43
Supplies furnished Lunch department, Technical High School, ...		6 16
Total janitor, bath room and Lunch department supplies, ...		$1,808 88

EXPENDITURES FOR JANITORS' SUPPLIES.

Janitors' supplies and furnishings, ...	$1,992 05
Laundering towels, etc., ...	473 74
Repairing flags, ...	13 75
Express and freight charges, ...	9 00
	$2,488 54

49 SUMNER AVENUE.

By appropriation, ...		$17,500 00
Receipts to November 30, 1910, ...		2,092 38
Receipts for 1911, ...		192 00
Transfer from Contingencies account, ...		1,000 00
Total, ...		$20,784 38
Expenditures to November 30, 1910, . .	$19,554 94	
Expenditures for 1911, ...	1,139 68	
		20,694 62
Balance unexpended, ...		$89 76

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CENTRAL STREET SCHOOL, ADDITIONAL LAND.

By appropriation,		$7,500 00
Receipts to November 30, 1910,		2,604 50
Receipts for 1911,		610 00
Total,		$10,714 50
Expenditures to November 30, 1910,	$10,077 21	
Expenditures for 1911,	101 42	
		10,178 63
Balance unexpended,		$535 87

MILITIA RIFLE RANGE.

Caretaker,		$235 00
Electric light,		5 00
Fire extinguisher,		6 75
Work on embankment,		66 18
Painting,		1 23
Telephone repairs,		56 05
Retaining wall,		236 00
Cleaning out rifle pits,		159 75
Taxes,		102 90
Water,		15 00
Taking down targets, etc.,		7 97
Total,		$891 83
By appropriation,	$650 00	
By balance from 1910,	10 86	
By transfer from Contingencies account,	250 00	
By receipts,	5 00	
		$915 86
Total expenditures,		891 83
Balance unexpended,		$24 03

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MUNICIPAL HEATING AND LIGHTING PLANT.

Engineer and fireman,	$682 83
Coal and analysis,	1,454 18
Carpenter labor and material,	21 19
Oil,	49 88
Hardware,	12 25
Stationery,	5 42
Supplies, etc.,	58 49
Total,	$2,284 24
By appropriation,	$3,500 00
Expenditures to November 30, 1911,	2,284 24
Balance unexpended,	$1,215 76

Respectfully submitted,

HIRAM L. DORMAN,

Schoolhouse Agent.

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BOARD OF ALDERMEN, December 21, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 21, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 22, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 22, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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APPENDIX.

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SCHOOL CALENDAR, 1912.

Winter Term begins	January 2, 1912
Winter Term ends	February 21, 1912
Spring Term begins	March 4, 1912
Spring Term ends	April 26, 1912
Summer Term begins	May 6, 1912
Summer Term ends	June 28, 1912
Fall Term begins	September 3, 1912
Fall Term ends	December 20, 1912

SCHOOL HOLIDAYS.

Washington's Birthday,	February 22
Patriots' Day,	April 19
Memorial Day,	May 30
Columbus Day,	October 12
Thanksgiving,	(Thursday and Friday)

SCHOOL SIGNALS.

Two blows, five times, at 7.30 A. M.
No morning session of high schools.

Two blows, five times, at 7.45 A. M.
No morning session of primary and grammar schools.

Two blows, five times, at 11.30 A. M.
No afternoon session of primary and grammar schools.

Two blows, five times, at 12.15 P. M.
No afternoon session of high school.

In addition to the bell signals there will be two blasts of the steam whistle.

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SCHOOL BOARD FOR 1912.

EDWARD H. LATHROP, MAYOR,
CHAIRMAN, *ex officio.*

	TERM EXPIRES.
AT LARGE.—EDWARD H. WILKINSON, VICE-CHAIRMAN, 136 Mill Street.	Dec. 31, 1912
WARD 1.—WAYLAND V. JAMES, 69 Waverly Street.	Dec. 31, 1912
WARD 2.—IRVING S. PULCIFER, 21 Blake Hill.	Dec. 31, 1912
WARD 3.—RALPH B. OBER, 76 Maple Street.	Dec. 31, 1913
WARD 4.—LEONA M. PEIRCE, 247 Union Street.	Dec. 31, 1913
WARD 5.—MRS. ESTHER J. MORGAN, 7 Lincoln Street.	Dec. 31, 1913
WARD 6.—FREDERICK HARRIS, 270 Maple Street.	Dec. 31, 1914
WARD 7.—FRANCIS M. BENNITT, 120 Sumner Avenue.	Dec. 31, 1914
WARD 8.—GEORGE H. HOWARD, 204 Wilbraham Road.	Dec. 31, 1914

SECRETARY,
BERTHA M. McCONKEY.

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SUPERINTENDENT OF SCHOOLS,

JAMES H. VAN SICKLE,

Office, 47 Vernon Street. Office hours: School days, from 12 M. to 1 P. M.; Saturdays, from 10 A. M. to 1 P. M.

ASSISTANT SUPERINTENDENT OF SCHOOLS, PRIMARY SCHOOLS, AND KINDERGARTENS,

BERTHA M. McCONKEY,

Office, 47 Vernon Street. Office hours: School days, from 12 to 1 P. M.; Saturdays, from 10.30 A. M to 1 P. M.

CHIEF CLERK,

FRED L. WARD,

Office, 47 Vernon Street. Office hours: 8.30 A. M. to 5 P. M.; Saturdays, 8.30 A. M. to 1 P. M.

CLERKS,

EDWINA A. MILLER,
CHARLES A. H. PARKER,
A. LEOTA PINNEY,
ANNA F. LEONARD.

SCHOOLHOUSE AGENT,

HIRAM L. DORMAN,

Office, 47 Vernon Street. Office hours: 10.30 to 11.30 A. M. and 4 to 5 P. M.

TRUANT OFFICER,

JOHN A. PARKER.

ASSISTANT,

H. A. KILLMER,

Office, 47 Vernon Street. Office hour: 1 to 2 P. M.

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SPECIAL COMMITTEES FOR 1912.

Finance.
THE MAYOR, MR. WILKINSON, and MR. HARRIS.

Text-Books and Supplies.
MISS PIERCE, DR. BENNITT, and PROF. HOWARD.

Central High School.
DR. BENNITT, MISS PIERCE, and DR. OBER.

Technical High School.
MR. WILKINSON, MRS. MORGAN, and MR. PULCIFER

High School of Commerce.
MR. HARRIS, DR. BENNITT, and MR. JAMES.

Industrial Schools and Manual Training.
MR. JAMES, DR. OBER, and MR. WILKINSON.

Evening Schools.
DR. OBER, MR. WILKINSON, and PROF. HOWARD.

Kindergartens.
MRS. MORGAN, MISS PEIRCE, and MR. JAMES.

Ungraded Schools.
PROF. HOWARD, MR. PULCIFER, and MRS. MORGAN.

Physical Culture and Hygiene.
DR. BENNITT, DR. OBER, and MR. HARRIS.

Music.
MRS. MORGAN, MISS PEIRCE, and MR. HARRIS.

Domestic Science and Art.
MISS PEIRCE, MRS. MORGAN, and MR. PULCIFER.

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New Buildings.

MR. JAMES, MR. WILKINSON, and MR. HARRIS.

Salaries.

MR. PULCIFER, DR. BENNITT, and MR. JAMES.

Ward One Group of Schools.

Carew street, Brightwood, Lincoln, Jefferson avenue, Armory street, and Chestnut street.

MR. JAMES.

Ward Two Group of Schools.

Hooker and Charles street.

MR. PULCIFER.

Ward Three Group of Schools.

Howard street.

DR. OBER.

Ward Four Group of Schools.

State street, Worthington street, and School street.

MISS PEIRCE.

Ward Five Group of Schools.

Barrows, Tapley, Strickland, and East Union street.

MRS. MORGAN.

Ward Six Group of Schools.

South Main street and William street.

MR. HARRIS.

Ward Seven Group of Schools.

Central street, Belmont avenue, Forest Park, Kensington avenue, Alden street, White street, and Eastern avenue.

DR. BENNITT.

Ward Eight Group of Schools.

Buckingham, Homer street, Indian Orchard Grammar and Primary.

PROF. HOWARD.

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THE CENTRAL HIGH SCHOOL.

A high school for the center district or village of the town was organized in 1841 on Elm street, on the site of the present court house. Rev. Sanford Lawton was its first principal, and was succeeded in 1844 by Ariel Parish. A new building was erected for the school, and was dedicated September 9, 1848. This building was removed in 1892, the site now being occupied by the Municipal Building.

In 1849 an act was passed by the Legislature requiring all towns containing 500 families or more to support a high school for the benefit of the whole town. An arrangement was soon after made by which a town high school was opened in the above-named building, May 5, 1849.

The high school building in which the school had been housed until September, 1898, was first occupied August 31, 1874. This building had been inadequate to meet the needs of the school for a good many years.

The new building was first occupied in September, 1898. Its dimensions are 203 feet by 173 feet, and it accommodates 800 pupils.

The school year of 1899-1900 marked the fiftieth anniversary of the high school as it at present exists, and the twenty-fifth anniversary of the entrance into the building standing next the one now occupied. During these fifty years the total enrollment of the school was about 15,000, the number of different pupils enrolled about 6,000, and the number of graduates 1,566.

An alumni association was organized in 1854. This had an intermittent existence up to six years ago, and renewed and

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enlarged its organization at a large gathering in the present school building on October 20, 1899, the day of the fiftieth anniversary.

The following are the present officers of the High School Alumni Association: Executive committee: President, Frederick Harris; vice-president, Mrs. George Pirnie; secretary, Robert C. Pepper; treasurer, Philip Beebe; Mrs. W. F. Adams, Mrs. Walter V. McDuffee, Miss Florence Besse, Walter G. Morse, Raymond A. Bidwell.

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THE HIGH SCHOOL OF COMMERCE.

A commercial department was organized in the Central High School in September, 1898, with 37 pupils. In 1906, because of the growth of the Central High School, the commercial department was transferred to the Technical High School. In 1910, the overcrowding of the Technical High School building made it necessary to find other accommodations for the commercial department, and it was then voted by the school board to give this department an independent organization under the name of the High School of Commerce. The present enrollment of the school is 442, and the sessions are held between the hours of 1.15 and 5.30 in the Central High School building.

It is a common error to assume that the work of such a school is to prepare boys and girls to be merely stenographers and bookkeepers. The High School of Commerce has a twofold purpose. It must give a special training that will help its graduates to find employment in the business world, and the instruction in shorthand, bookkeeping, and the other technical branches is so thorough and complete that the graduates of the school quickly find employment in the best business offices of the city as general clerks, bookkeepers, and stenographers. These graduates are successfully filling every kind of position in the business houses of Springfield, and the increasing demand for them justifies the statement that the school is meeting a legitimate need in the city.

The second purpose of the school is to give a general training that will help the graduates to earn promotion to the more responsible business positions, and also equip them for the duties of citizenship. To this end, the curriculum includes strong

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courses in English composition, literature, history, civics, and economics. These subjects not only afford that all-round education and training which the modern business man needs, but they are also an essential part of the preparation for intelligent citizenship.

The High School of Commerce is not a college preparatory school, and its course of study has not been planned to meet the requirements for admission to college; but the school does prepare young women to enter the Secretarial School of Simmons College, and young men to enter the School of Commerce, Accounts, and Finance of New York University and the Wharton School of Finance of the University of Pennsylvania. This makes it possible for the graduates of the school, if they so desire, to secure college training along commercial lines.

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THE TECHNICAL HIGH SCHOOL.

ELLIOTT STREET.

CHANGES IN ORGANIZATION AND NAME.

Commencing with September, 1896, the high school manual training course, which had hitherto covered three years, was rearranged to cover four years; and instead of the manual work of the course being taught in the afternoon, as formerly, it was taught in the forenoon. High school pupils electing the manual training course went to the manual training school, which was located near by, for the shop work required in connection with the academic branches in this course.

In August, 1898, the manual training school was reorganized and established as an independent high school, designated as the Mechanic Arts High School. To carry this change of organization into effect it was necessary to provide a building in which academic as well as manual instruction could be given.

At this juncture it was brought to the attention of the Committee that the Springfield Industrial Institute at Winchester Park had been discontinued, so that its building, designed for giving academic as well as mechanical instruction, was available. This building was accordingly leased for a term of years and the new high school organized in September, 1898. The purpose of the school was not understood at first, partly because it became associated in the minds of many people with its predecessor in the same building—the Industrial Institute—which had been a private school for teaching trades, both day and evening; partly because, in October, 1898, soon after the opening of the Mechanic Arts High School, a new public evening trade school was organized in the same building, making use of

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the same equipment and employing the same teachers as the high school; and partly because the word "Mechanic" in the name of the school was misinterpreted by many to imply the teaching of trades. The Mechanic Arts High School was not organized as a trade school, but as a high school in which, besides the academic branches of a full high school course, the fundamental principles of drawing, of design, and of hand and machine tool work should be taught in a practical way. In order that there might be no further misunderstanding of the purposes of the school, its name was changed in May, 1904, to the Technical High School.

THE NEW BUILDING.

The Technical High School has grown rapidly from the first. In order to furnish adequate accommodations and give the school a more central location, as well as to provide for the rapidly increasing high school enrollment in general, to all of which needs the attention of the City Government had repeatedly been called in former reports of the School Committee, active steps were taken in the fall of 1903 to provide a new high school building. With the organization of the school in the new building, and in accordance with the action of the School Board under date of February 10, 1906, the curriculum was extended to include instruction in domestic science and household arts together with the ordinary high school studies.

GENERAL CHARACTER OF THE CURRICULUM.

The Technical High School is an independent public high school free to all properly qualified boys and girls who hold a legal residence in Springfield. Its curriculum is designed to combine and correlate practical training with a full course of academic studies. Strong courses in English language and literature, mathematics, science, history, French, German, and

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Latin are offered; but the distinctive feature is the recognition of the principle that the activities of home life or of an industrial or business career should properly begin in school. Every boy in the school is required to take four years of mechanical drawing together with free-hand drawing and design, and from three to four years of varied practice in the use of hand and machine tools in order to secure the educational advantages of manual and technical training. No attempt, however, is made to teach either the mechanical or the building trades as such. The courses of instruction offered to the girls have been laid out on the same broad and liberal lines as those of the boys. While the value of the literary studies that have come to be recognized as belonging to high school courses is by no means overlooked, at the same time the cultural value of practical and scientific work rightly directed toward utilitarian ends is appreciated. The aim in all departments of the school is educational, broad, and practical,—not narrowly vocational.

TERMS OF ADMISSION TO ALL HIGH SCHOOLS.

Pupils are admitted to the high schools twice a year. All pupils of the grammar schools who are recommended by the principals of these schools are admitted without examination. All those not so recommended are granted the privilege of an examination for admission if they desire it.

Non-residents are admitted upon passing the required examination and paying a tuition of $100 per year in advance. A special pamphlet containing the courses of study and all other necessary information in regard to the school is issued separately, and may be obtained by applying to the Superintendent of Schools.

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THE EVENING SCHOOL OF TRADES.

ORGANIZATION AND DEVELOPMENT.

In the autumn of 1898 steps were taken to provide at public expense instruction in trades. Evening classes were organized to meet in the building of the Mechanic Arts High School, the valuable equipment of which could thus be put to a double use. There were two classes formed in tool-making and one in plumbing. Each class met three evenings a week, from 7.15 to 9.15, for five months. These classes proved to be very successful. Not only was the instruction universally acknowledged to be of great value to the men who received it, but it was also admitted to be of general profit to the trades represented. The Master Plumbers' Association voluntarily agreed, in employing help, to give preference to the members of the evening classes in plumbing. Leading representatives of the iron-working and wood-working trades expressed approval, and advised their employees to join these classes. It was evident from the first that the expense of maintaining this important addition to the public school system of Springfield would not be a serious matter, and the several city governments have, almost invariably, promptly voted the moderate sum required. No inconsiderable return has come to the city in the tools and other apparatus made by the machine shop classes.

The growth of this school has been exceedingly encouraging. The classes in machine shop practice and tool-making have shown the greatest increase in enrollment, exhausting the capacity of the shop and creating a waiting list of applicants. The value of this work is evidently appreciated by those who

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have availed themselves of the opportunities offered in these classes. The enrollment in the wood-working and pattern-making class has also increased. A class in mathematics for mechanics was organized at the opening of the school in October, 1901, and it proved to be a valuable addition to the school. The enlargement of this work during the years following is evidence of a growing appreciation among mechanics of the value of such instruction. There are now three classes, namely, an elementary, a middle, and an advanced class, which together cover a wide range of mathematical subjects. A lecture course in electricity and magnetism was also started in 1901. The following year this work was extended by the addition of two laboratory classes in applied electricity, each class coming twice a week. These classes have met the popular interest in electrical subjects, and the work already accomplished justifies their continuance. It will be seen that the work of this school now includes thorough instruction in mechanical drawing, machine shop practice and tool-making, plumbing, joinery and wood-turning, pattern-making, shop mathematics, and electricity.

GENERAL OBJECT.

The object of the Evening School of Trades is mainly to give men already employed in the trades, who know, therefore, at least a part of the trade in which they are employed, an opportunity to broaden their mechanical training and make themselves more efficient workmen. It is not the function of this school to train apprentices as such, but to supplement the imperfect and highly specialized training of modern shops by giving machine hands, helpers, and apprentices, so far as there are any apprentices, an opportunity to gain practice in a greater variety of work than would ever be open to any one man under the modern system of machine production. The aim of the school is to enable a mechanic to acquire a wider range of

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practical knowledge and to improve the quality of his work, and thus reach a higher classification in his trade with increased wages. This is a great advantage to the individual workman; but it does not materially affect the condition of the labor market in general.

TERMS OF ADMISSION.

Tuition in all the classes is free to all persons over fourteen years of age who are residents of Springfield, but a fee of $5 for materials and other incidental expenses is charged each member of the classes in machine shop practice, and in pattern-making; in plumbing this incidental fee is $8, and in the laboratory work in electricity it is $4. Non-residents are charged a tuition fee for the season of twenty-four weeks as follows: For mechanical drawing, for mathematics, and for electricity, $10; for all other classes, $15. Non-residents are also charged the incidental fees. Members are required to be regular in attendance. Persons wishing to join classes must give satisfactory references as to character and show evidence of ability to do the work required. Certificates of proficiency are awarded in each course to those who complete that course satisfactorily. The school opens the second week in October and is in operation 24 weeks, closing Thursday and Friday evenings of Thanksgiving week and during the vacation of the Christmas holiday season. The school hours are from 7.15 P.M. to 9.15 P.M.

EVENING CLASSES IN DOMESTIC SCIENCE, DRESS-MAKING, FREE-HAND DRAWING, AND ART-CRAFTS.

In January, 1909, a new departure in the evening technical work was inaugurated by the organization in the Technical High School building of classes in domestic science, dress-making, and home decoration. The courses offered were some-

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what experimental and were arranged with a view to testing the demand for this kind of work. So large a number of applicants came for all three of the courses offered, but especially for the course in dressmaking, that it was impossible for the School Committee with the limited appropriation available, to provide teachers for more than one fourth of the applicants. Since the work was started late in the year the courses were necessarily brief. They were limited to twenty-four lessons.

The results of this experiment were very gratifying not only in the demand for the work as indicated in the large number of applicants but also in the zeal manifested by those admitted to the classes and in the character of the work done. In the fall of 1909, therefore, two courses in domestic science were organized, one of forty-eight lessons, with the class meeting twice each week, and the other of twenty-four lessons, with the class meeting once each week. The elementary course in sewing was continued, and since the new equipment for advanced household arts work in the day school was now available, a course in dressmaking was organized, thus offering two grades of evening work in sewing. The art courses were modified and arranged to bring about closer correlation between design and craft work, and the scope of the course was broadened to include not only household decoration but other work in the arts and crafts. A suitable room was fitted up for instruction in free-hand and model drawing, and the evening classes in this work which had hitherto been conducted at the Central High School were brought over and made a part of this department, thus consolidating all the evening art work in one building.

TERMS OF ADMISSION.

Tuition in all the evening art classes and in the practical classes in domestic science, sewing, and home decoration is free

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to all persons over fourteen years of age who are residents of Springfield, but a fee of $2.50 for materials and other incidental expenses is charged each member of the classes in design and crafts and domestic science; in the classes in sewing and dress-making this incidental fee is $2.00. No incidental fee is charged for the classes in free-hand and model drawing. In addition to these incidental fees non-residents are charged a tuition fee of $10.00 for the season of twenty-four weeks.

For information in regard to any of the courses of the Evening School of Trades, apply to Mr. Charles F. Warner, Principal, Technical High School.

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DECORATION OF SCHOOLROOMS.

The works of art that beautify many of the schoolrooms in the city have a refining influence upon the children who see them from day to day. The deep interest taken in securing fine works of art for decorating the schoolrooms is shown by the large sums that have been collected for this purpose in many of the schools. Without doubt money thus spent will yield a large return in the form of a better appreciation of that which enriches the emotional nature.

The table given herewith indicates the fund raised up to the present time by each school that has engaged in this work:—

Central High,	$6,709 07
High School of Commerce,	273 00
Technical High,	487 75
Alden Street,	106 00
Armory Street,	423 56
Barrows,	873 40
Belmont Avenue,	70 55
Boston Road,	13 80
Brightwood,	94 00
Buckingham,	881 65
Carew Street,	263 81
Central Street,	983 21
Charles Street,	15 00
Chestnut Street,	1,230 00
Eastern Avenue,	128 92
East Union Street,	64 85
Forest Park,	675 96
Glenwood,	5 00
Homer Street,	80 00
Hooker,	971 46
Howard Street,	977 20
Indian Orchard Grammar,	180 00
Indian Orchard Primary,	112 00
Jefferson Avenue,	776 64

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Kensington Avenue,	$379 50
Lincoln School,	163 25
School Street,	143 28
South Main Street,	277 47
State Street,	140 00
Strickland,	190 66
Tapley,	517 61
White Street,	467 46
William Street,	473 83
Worthington Street,	700 16
	$19,849 45

SCHOOL SAVINGS BANKS.

The two statistical tables given below have been furnished by the Secretary of the Union Relief Association. The items that appear in the first table are taken from the annual report of the Association. The savings made by the children of the various schools, as shown in this tabulated statement, are deposited in the savings banks of Springfield.

The items that appear in the second table include the total sales of stamps and the total amount deposited in savings banks for the past fifteen years. This summary shows the extent of this excellent work.

Statistics for year from April 1, 1910, to April 1, 1911:—

	Amount of Stamps Sold at Schools.	Amount Deposited in Savings Bank.
Alden Street,	$75 50	$42 57
Armory Street,	222 39	95 48
Barrows,	131 13	31 35
Belmont Avenue,	45 00	34 41
Brightwood,	107 24	78 78
Carew Street,	546 73	312 55
Central Street,	185 00	67 71
Charles Street,	154 00	117 46
Chestnut Street,	75 91	63 88

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	Amount of Stamps Sold at Schools.	Amount Deposited in Savings Bank.
Eastern Avenue,	$163 00	$105 51
East Union Street,	10 00	7 60
Forest Park,	81 61	36 68
Homer Street,	25 17	20 46
Hooker,	1,345 88	940 81
Howard Street,	267 75	70 46
Indian Orchard Grammar,	405 00	280 49
Indian Orchard Primary,	117 00	73 47
Jefferson Avenue,	255 00	165 85
Kensington Avenue,	189 20	62 23
South Main Street,	293 83	193 02
School Street,	10 72	4 61
Strickland,	164 34	81 64
Tapley,	11 33	8 03
White Street,	135 50	92 63
William Street,	138 19	73 86
Worthington Street,	332 00	129 50
	$5,488 42	$3,191 04

Year.	Total Sales for Fifteen Yrs.	Total Bank Deposits for Fifteen Yrs.	Year.	Total Sales for Fifteen Yrs.	Total Bank Deposits for Fifteen Yrs.
1897	$4,451.43	$3,111.25	1905	$5,012.27	$2,980.66
1898	3,547.47	2,320.62	1906	7,700.86	3,990.86
1899	4,790.41	2,973.65	1907	6,135.30	3,628.97
1900	4,736.63	2,661.01	1908	8,659.73	3,900.87
1901	4,513.84	2,719.25	1909	7,323.49	3,489.59
1902	6,024.34	3,414.73	1910	5,856.61	3,008.23
1903	5,238.94	3,155.38	1911	5,488.42	3,191.04
1904	4,802.99	2,573.41		$84,282.78	$47,119.52

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LIST OF TEXT-BOOKS.

AUTHORIZED FOR USE IN THE PUBLIC SCHOOLS.

PRIMARY AND GRAMMAR SCHOOLS.

Ordinary type without numbers indicates books of which a copy is to be furnished to each pupil; ordinary type with numbers in parentheses indicates books of which the numbers specified will be furnished to a building; books in italics will be furnished in sets not exceeding 25 to each room in which they are used. Schools needing less than these quantities should make requisitions for less. These statements do not apply to high school books.

READING.

AUTHOR.	TITLE.	GRADE.
Blaisdell	*Boy Blue and his Friends*	II
Blaisdell, Etta A.	Child Life Reader, 1st to 3d	I-III
Bryce, Katherine	*Child-Lore Reader*	II
Cyr, Ellen M.	Primer	I
Free & Treadwell	*The Primer*	I
Holbrook, Florence	Hiawatha Primer	II
Howe, W. D.	Third Reader	III
Jones, L. H.	Jones' Third Reader (40)	III
Noyes & Guild	Sunshine Primer	I
Osgood, Eulalie Grover	Folklore Primer	I
Osgood, Eulalie Grover	Sunbonnet Babies Primer	I
Powers & Balliet	Readers	I-IX
Rice & Ketchum	*Our Story Reader*	I
Shaw, Edward R.	Big People and Little People of Other Lands	III
Stevenson, Augusta	*Children's Classics in Dramatic Form*	IV
Thompson, J. G. & T. E.	For Childhood Days	I
Wiltse, Sara E.	Folklore Stories and Proverbs	II
GEOGRAPHICAL.		
Andrews, Jane	Seven Little Sisters	IV
Carpenter, Frank G.	Geographical Reader, Asia	V
Carpenter, Frank G.	Geographical Reader, North America	VI
Carpenter, Frank G.	Geographical Reader, Europe	VII
Carroll, Stella W.	Around the World, Bk. 1	II

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AUTHOR.	TITLE.	GRADE.
Carroll, Stella W.	Around the World, Bk. 2	IV
Chaplin, F. P. & Humphrey, F. A.	Little Folks of Other Lands	II
Kirby, Mary & Elizabeth	Aunt Martha's Corner Cupboard (50)	IV
Schwatka, Frederick	Children of the Cold (50)	V
HISTORICAL.		
Eggleston, Edward	Stories of Great Americans (50)	IV
Ellson & Macmullan	*Story of Our Country*	IV
Hawthorne, N.	Grandfather's Chair (50)	VII
Pratt, Mara L.	Legends of the Red Children (50)	VI
Smythe, E. Louise	Old Time Stories	II
Tanner, Dorothy	Legends from the Red Man's Forest (50)	V
ELEMENTARY SCIENCE.		
Cooke, Flora J.	Nature Myths (50)	III
Long, William J.	Ways of Wood Folk (50)	V
GENERAL LITERATURE.		
Æsop	Fables (Stickney)	IV
Andersen, Hans	Fairy Tales, I & II (50)	V
Baldwin, James	Fairy Stories and Fables (50)	III
Baldwin, James	Old Greek Stories (50)	IV
Beckwith, M. Helen	In Mythland, Vol. I.	II
Bellamy, Charles J.	Wonder Children	IV
Carroll, Lewis	Alice's Adventures in Wonderland (50)	V
Cook, Agnes S.	Story of Ulysses (50)	V
Cooper, J. Fenimore	The Spy (50)	VII
Defoe, Daniel	Robinson Crusoe (Lambert) (50)	VI
Dickens, Charles	Christmas Carol, etc. (50-100)	VIII
Dickens, Charles	Little Nell (50-100)	VII
Dickens, Charles	Tale of Two Cities	IX
Francillon, R. E.	Gods and Heroes	VIII
Hawthorne, N.	Tanglewood Tales (50)	VII
Hawthorne, N.	Wonder Book (50)	VI
Homer	Odyssey (Palmer) (50-100)	IX
Kingsley, Charles	Water Babies (50)	V
Longfellow, H. W.	Hiawatha (50)	VI
Longfellow, H. W.	Selections (50-100)	VIII
Martineau, Harriet	Peasant and Prince	IX
Norton, C. Eliot	Heart of Oak, I (25)	I
Scott, Walter	Ivanhoe	IX
Scott, Walter	Kenilworth (50-100)	IX
Scott, Walter	Lady of the Lake (Rolfe) (50-100)	IX

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AUTHOR.	TITLE.	GRADE.
Scott, Walter	Marmion (Rolfe) (50-100)	IX
Scott, Walter	The Talisman (Holbrook) (50-100)	IX
Shakespeare, W.	Julius Cæsar (Hudson) (50)	IX
Stockton, Frank R.	Fanciful Tales (50)	V
Wyss, J. D. & J. R.	Swiss Family Robinson (Stickney) (50)	VI
	LANGUAGE.	
Chancellor	Graded City Speller, Fifth Year	V
Chancellor	Graded City Speller, Sixth Year	VI
Chancellor	Graded City Speller, Book II.	VII-IX
Southworth, G. A.	Elements of Composition and Grammar	VIII, IX
	ARITHMETIC.	
Emery, M. S.	Everyday Business (50)	VIII
Nichols, W. F.	New Graded Lessons in Arith.	II-V
Smith, D. E.	Primary	III, IV
Smith, D. E.	Intermediate	V, VI
Smith, D. E.	Advanced	VII, VIII
Southworth-Stone	Book I	III, IV
Southworth-Stone	Book II	V, VI
Southworth-Stone	Book III	VII, VIII
Spencer, W. G.	Inventional Geometry	IX
	GEOGRAPHY.	
Frye, Alexis E.	Grammar School Geography	VIII
Morton, Eliza H.	Advanced Geography	VI, VII
Morton, Eliza H.	Elementary Geography	V
King, Charles F.	Advanced Geography	IX
	HISTORY.	
Fiske, John	War of Independence	IX
Gibson, J. W.	Chart History of the Civil War (50-100)	VIII
Gordy, Wilbur F.	Complete History of the United States	VII, VIII
Gordy, Wilbur F.	American Leaders and Heroes (50)	V
Montgomery, D. H.	Leading Facts of French History (50-100)	IX
Scudder, Horace E.	George Washington (50-100)	VII
Tappan, Eva March	England's Story	IX

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PHYSIOLOGY.

AUTHOR.	TITLE.	GRADE.
Blaisdell, Albert F.	Child's Book of Health	IV
Blaisdell, Albert F.	How to Keep Well	VII
Steele, J. D.	Hygiene for Young People	VI

BOOKKEEPING.

Meservey, A. B.	Bookkeeping	VIII

MUSIC.

Züchtman, F.	New American Music Reader, Book II	III, IV
Züchtman, F.	New American Music Reader, Book III	V, VI
Züchtman, F.	New American Music Reader, Book IV	VII-IX

PENMANSHIP.

Hill, Anna E.	System of Medial Slant Penmanship	I-IX

DICTIONARY.

Webster, Noah	Primary Dictionary	IV, V
Webster, Noah	Common School Dictionary	VI-IX

MANUAL TRAINING.

Murray, M. W.	Problems in Wood Working	

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HIGH SCHOOLS.

CLASSICS.

Text-Books:

AUTHOR.	TITLE.
Allen & Greenough	Cæsar
Allen & Greenough	Latin Grammar
Arrowsmith & Knapp	Viri Romæ
Autenreith	Homeric Dictionary
Barss	Cornelius Nepos
Collar & Daniell	Practical Latin Composition
Collar & Daniell	First Year Latin
Collar & Daniell	New Gradatim
D'Oöge	Latin Composition
D'Oöge	Cicero
Fairdough & Brown	Æneid
Gleason	Xenophon's Cyropædia
Gleason	Greek Prose Composition
Greenough & Daniell	Sallust's Catiline
Greenough & Kittredge	Vergil
Hadley & Allen	Greek Grammar
Harper	Latin Dictionary
Keep	Homer's Iliad (Books I-VI)
Kelsey	Cæsar, Gallic Wars
Kelsey	Cicero
Kelsey	Ovid
Kelsey	Xenophon's Anabasis
Liddell & Scott	Abridged Greek Dictionary
Merry	Homer's Odyssey (Books I-XII)
Perrin	Homer's Odyssey (Books I-IV)
Potter	A New Method for Cæsar
Ritchie	Fabulæ Faciles
Rolfe	Xenophon's Anabasis (Book V)
Shuckburgh	Cicero de Senectute (Cato Major)
White	First Greek Book
Woodruff	Greek Prose Composition

Supplementary Books:

Allen & Greenough	Cicero
Butler	Herodotus (Book VII)
Collar	Gate to Cæsar
Conington	Vergil
Greenough	Vergil's Æneid (Books VII-XII)
Jeram	Angelice Reddenda
Moss	First Greek Reader
Page	Bucolics of Vergil
Page	Fifty Letters of Cicero

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ENGLISH.

Text-Books:

AUTHOR.	TITLE.
Addison	Sir Roger de Coverley Papers
Brooks & Hubbard	Composition Rhetoric
Browning	Shorter Poems
Buehler	Exercises in English
Bunyan	Pilgrim's Progress
Burke	Speech on Conciliation with America
Byron	Shorter Poems
Carlyle	Essay on Burns
Coleridge	Ancient Mariner
Cooper	The Last of the Mohicans
De Quincey	English Mail Coach
Dickinson & Roe	Nineteenth Century English Prose
Eliot	Silas Marner
Emerson	Culture, Books, Power
Genung	Outlines of Rhetoric
Goldsmith	Vicar of Wakefield
Halleck	History of American Literature
Hitchcock	Words and Sentences
Kittredge & Arnold	Manual of Composition
Lockwood & Emerson	Composition and Rhetoric
Long	American Poems
Long	English Literature
Lowell	Vision of Sir Launfal
Macaulay	Lays of Ancient Rome
Macaulay	Essays on Milton and Addison
Macmillan Co.	An Outline for the Study of American Civil Government
Milton	Lyrics
Milton	Paradise Lost
Mooney	Foundation Studies in Literature
Pancoast	Introduction to American Literature
Pancoast	Introduction to English Literature
Pope	Iliad
Pope	Rape of the Lock
Shackford & Judson	Composition, Rhetoric, and Literature
Scott	Ivanhoe
Scott	Marmion
Scott & Denney	Composition-Rhetoric
Scott & Denney	Elementary English Composition
Simonds	Student's History of English Literature
Tennyson	Idylls of the King
Tennyson	The Princess
Thurber	Select Essays of Macaulay
Webster	Bunker Hill Oration
Webster	English Composition and Literature

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AUTHOR.	TITLE.
Woolley	Handbook for Composition
Wordsworth	Shorter Poems
Supplementary Books:	
Aldrich	Story of a Bad Boy
Arnold	Sohrab and Rustum
Bacon	Essays
Bigelow	Handbook of Punctuation
Blackmore	Lorna Doone
Bradley	Orations and Arguments
Browning	Cavalier Tunes
Browning	Lady Geraldine, Selected Poems
Bryant	Selections
Bryant	Iliad
Bryant	Odyssey
Buehler	A Modern English Grammar
Byron	Childe Harold
Carlyle	Heroes and Hero Worship
Chaucer	Prologue to Canterbury Tales
De Quincey	De Quincey's Confessions
Dickens	A Tale of Two Cities
Emerson	American Scholar
Emerson	Fortunes of the Republic
Ewing	Jackanapes
Fernald	English Synonyms, etc.
Franklin	Antigone of Sophocles
Franklin	Autobiography
Gaskell	Cranford
Gayley	Classic Myths
Genung	Practical Rhetoric
Genung	Rhetorical Analysis
George	From Chaucer to Arnold
Goldsmith	She Stoops to Conquer
Goldsmith	Deserted Village
Guerber	Myths of Greece and Rome
Green	Short History of the English People
Hale	Longer English Poems
Hawthorne	Twice Told Tales
Hawthorne	Tales of the White Hills
Hawthorne	House of Seven Gables
Hawthorne and Lemmon	American Literature
Holmes	Selections from Breakfast Table Series
Irving	Life of Oliver Goldsmith
Irving	Alhambra
Irving	Selections from Sketch Book
Irving	Tales of a Traveler
Kipling	The Jungle Book

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AUTHOR.	TITLE.
Lamb	Essays from Elia
Lewis	First Book in English
Lockwood	Lessons in English
Longfellow	Hiawatha
Macaulay	Earl of Chatham
Macaulay	Essay on Clive
Macaulay	Essay on Warren
Macaulay	Essays on Addison and Johnson
Macaulay	Masterpieces of British Literature
Macaulay	On Life of Samuel Johnson
Matthews	Introduction to American Literature
O'Neill	Punctuation
Palgrave	Golden Treasury
Palmer	Translation of the Odyssey of Homer
Parkman	Champlain and His Associates
Pattee	A History of American Literature
Poe	Poems and Tales
Poe	The Raven
Pope	The Iliad
Pope	Essay on Man
Potter	Alcestes of Euripides
Ruskin	Sesame and Lilies
Scott	Lady of the Lake
Scott	Woodstock
Shakespeare	A Midsummer Night's Dream (Rolfe)
Shakespeare	As You Like It (Longmann)
Shakespeare	Hamlet (Rolfe)
Shakespeare	Julius Cæsar (Rolfe)
Shakespeare	King John (Rolfe)
Shakespeare	King Henry IV (Part I) (Rolfe)
Shakespeare	King Henry IV (Part II) (Rolfe)
Shakespeare	King Henry V (Rolfe)
Shakespeare	King Lear (Rolfe)
Shakespeare	King Richard II (Rolfe)
Shakespeare	King Richard III (Rolfe)
Shakespeare	Macbeth (Rolfe)
Shakespeare	Merchant of Venice (Rolfe)
Shakespeare	Othello (Rolfe)
Shakespeare	Tempest (Rolfe)
Shakespeare	Twelfth Night (Rolfe)
Shaw	History of English Literature
Shelley & Keats	Selections
Socrates	Translation
Southworth	Composition and Grammar
Stevenson	Treasure Island
Tappan	Topical Notes on American Authors
Taylor	Lars
Tennyson	Shorter Poems

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AUTHOR.	TITLE.
Thackeray	The Newcomes
Warner	In the Wilderness
Webster	Academic Dictionary
Whitney & Lockwood	English Grammar
Whittier	Snowbound, Among the Hills, Songs of Labor
Wordsworth	Poetry of the People
Wordsworth	King Arthur Stories
Wordsworth	Robin Hood (Pyle Edition)
Wordsworth	Arabian Nights
Wordsworth	Don Quixote

FRENCH.

Text-Books:

About	Le Roi des Montagnes
Bacon	New French Course
Bacon	Une Semaine à Paris
Bazin	Contes Choisis
Bowen, ed.	Modern French Lyrics
Bruce	Dictées Françaises
Bruce	Grammaire Française
Bruno	Le Tour de France
Cameron	French Prose Composition
Chardenal	Complete French Course
Constanseau	French Dictionary
Corneille	Le Cid
Daudet	La Belle Nivernaise
Delbos	Le Bourgeois Gentilhomme
Desnoyers	Les Mesadventures de Jean-Paul Choppart
Dike	Scientific French Reader
Dumas	La Tulipe Noire
Dumas	Monte Cristo
Enault	Le Chien du Capitaine
Feuillet	Le Roman d'un Jeune Homme Pauvre
Foa	Le Petit Robinson de Paris
François	Advanced French Composition
François	Beginner's French
François	Introductory French Prose Composition
François & Giroud	Simple French
Fraser & Squair	French Grammar
Goodell	L'Enfant Espion
Grandgent	Prose Composition, Part I, based on L'Abbé Constantin
Grandgent	Prose Composition, Part IV, based on La Dernière Classe

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AUTHOR.	TITLE.
Grandgent	Prose Composition, Part V, based on La Pipe de Jean Bart
Guerber	Contes et Légendes
Halévy	L'Abbé Constantin
Heath	French-English and English-French Dictionary
Hennequin	Lessons in Idiomatic French
Hugo	Les Misèrables
Hugo	Quatre-vingt-treize
Josselyn & Talbot	Elementary Reader of French History
Kimball	Materials for French Composition based on Colomba
La Bedollière	La Mère Michel et Son
Labiche & Martin	Le Voyage de M. Perrichon
La Fontaine	Fables
Lamartine	Jeanne d'Arc
Larousse	Dictionnaire
Larousse	Grammaire Complète
Loti	Pécheur d'Islande
Mairet	La Tache du Petit Pierre
Malot	Sans Famille
Mavigne & Gilson	French Sight Reading
Mérimée	Colomba
Molière	L'Avare
Molière	Le Bourgeois Gentilhomme
de Musset	Histoire d'un Merle Blanc
Rogers	French Sight Reading
Sand	La Mare au Diable
Sandeau	Mlle. de la Seiglière
Sandeau	Sacs et Parchemins
Sarcey	Le Siège de Paris
Snow & Lebon	Easy French
Souvestre	Un Philosophe sous les Toits
Spiers & Surenne	French Dictionary
Super	French Reader
Theuriet	L'Abbé Daniel
Tuckerman	Simplicité
Verne	Tour du Monde en Quatre-vingt Jours
Worman	Grammaire Française

Supplementary Books:

Bercy	Le Français Pratique
Bruce	French Selections for Sight Translation
Coppée	Le Luthier de Crémone et Le Trésor
Duval	Petite Histoire de la Littérature Française
Erckmann-Chatrian	Le Conscrit de 1813

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AUTHOR.	TITLE.
Fortier	Sept Grands Auteurs
Foucin	Le Pays de France
Hugo	La Chute
Kuhn	French Readings for Beginners
Labiche & Martin	La Poudre aux Yeux
Lavisse	La Deuxième Année d'Histoire de France
Legouvé & Labiche	La Cigale chez les Fourmis
Mairet	L'Enfant de la Lune
Mariette	Half Hours of French Translation
Sand	La Famille de Germandre
Super	Anecdotes Faciles
Syms	Easy French Reader
Syms	Selected Letters of Madame de Sévigné
Syms	Le Chien de Brisquet
Töpffer	La Bibliothèque de Mon Oncle
Zola	La Débacle

GERMAN.

Text-Books:

Arnold	Ein Regentag und dem Lande
Arnold	Fritz auf Ferien
Brandt	German Reader
Chamisso	Peter Schlemihl
Collar	Shorter Eysenbach
Dippold	Scientific German Reader
Erk	Liederschatz
Freytag	Aus dem Staat Friedrichs des Grossen
Freytag	Karl der Grosse
Fulda	Der Talisman
Goethe	Dichtung und Wahrheit
Goethe	Hermann und Dorothea
Guerber	Märchen und Erzählungen
Hatfield	Materials for German Composition, based on Höher als die Kirche
Heath	German Dictionary
Heine	Die Harzreise
Heyse	Er Soll Dein Herr Sein
Heyse	L'Arrabbiata
Huss	German Reader
Jagemann	German Prose Composition
Jagemann	German Syntax
Joynes & Wesselhoeft	German Lesson Grammar
Kayser & Monteser	A Brief German Course
Kayser & Monteser	Foundations of German
Kayser & Monteser	German Grammar

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AUTHOR.	TITLE.
Keller	Kleider machen Leute
Kohlrausch	Das Jahr 1813
Leander	Träumereien
Lessing	Minna von Barnhelm
Moltke	Die Beiden Freunde
Mondan	German Selections for Sight Translations
Muller & Wenckebach	Glück Auf
Munchausen	Reisen
Pope	German Composition
Riehl	Der Fluch der Schönheit
Schiller	Thirty Years' War (Book III)
Schiller	Wilhelm Tell
Stolze	Bunte Geschichten
Seidel	Die Monate
Seidel	Leberecht Huhnchen
Spanhoofd	Deutsche Grammatik
Stifter	Das Heidedorf
Storm	Geschichten aus der Tonne
Storm	Immensee
Thomas	German Grammar
Tuckerman	Am Anfang
Von Hillern	Höher als die Kirche
Von Schiller	Der Neffe als Onkel
Vos	Essentials of German
Vos	Materials for German Conversation
Wenckebach, ed.	Die Schönsten Deutschen Lieder
Wildenbruch	Das Edle Blut

Supplementary Books:

Auerbach	Brigitta
Bacon	Im Vaterland
Baumbach	Das Habichtsfräulein
Baumbach	Der Schwiegersohn
Baumbach	Im Zwielicht
Benedix	Nein
Bernhardt	Novelletten Bibliothek
Bernhardt	Stille Wasser
Burwirth	Words of Frequent Occurrence
Ebner-Eschenbach	Krambambuli
Ernst	Flachsmann als Erzieher
Freytag	Aus dem Jahrhundert des Grossen Krieges
Frommel	Eingeschneit
Gerstacker	Germelshausen
Gore	German Science Reader
Groller	Inkognito

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AUTHOR.	TITLE.
Heyse	Anfang und Ende
Heyse	Das Mädchen von Treppi
Keller	Bilder aus der Deutschen Litteratur
Lessing	Nathan der Weise
Meissner	Aus Meiner Welt
Mosher	Der Bibliotekar
Mosher	Willkommen in Deutschland
Riehl	Burg Neideck
Spyri	Rosenresli (ed. Boll)
Sudermann	Teja
Zschokke	Der zerbrochene Krug

HISTORY.

Text-Books:

Andrews	A History of England
Ashley	American Government
Botsford	A History of Greece
Botsford	A History of Rome
Bryce	American Commonwealth
Channing	Student's History of the United States
Cheyney	History of England
Emerton	Introduction to the Middle Ages
Fiske	Civil Government in the United States
Guitteau	Government and Politics in the U. S.
James & Sanford	Government in State and Nation
Mackenzie	The Nineteenth Century
McLaughlin	American Nation
Montgomery	Leading Facts in English History
Morey	Outlines of Roman History
Myers	Ancient History
Myers	General History
Myers	Greece
Myers	Mediæval and Modern History
Myers	Middle Ages
Myers	Modern Age
Myers	Rome; Its Rise and Fall
Oman	A History of Greece
Robinson & Beard	Development of Modern Europe
Walker	Political Economy
West	Modern History
Woodburn & Moran	American History and Government
Wrong	History of the British Nation

Supplementary Books:

Adams	European History
Barnes	General History
Botsford	Ancient History for Beginners

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AUTHOR.	TITLE.
Church	Greek Life and Story
Church	Stories from Herodotus
Church	Stories of the Persian Wars
Cranch	Vergil's Eneid
Dawes	How We Are Governed
Fisher	Outlines of Universal History
Fiske	History of the United States
Goodspeed	History of the Ancient World
Hart	Source Book of American History
Johnston	History of the United States
Larned	History of England
Monro	Middle Ages
Sheldon	General History
Wilson	The State
Witt	Retreat of the Ten Thousand
Wright	Industrial History of the United States

MATHEMATICS.

Text-Books:

Atwood	Exercises in Algebra
Collins	Practical Algebra, First Year Course
Gore	Plane and Solid Geometry
Hawkes, Luby & Touton	First Course in Algebra
McCurdy	Exercise Book in Algebra
Merriman	Strength of Materials
Robbins	Plane Geometry
Schultz	Elementary Algebra
Schultze & Sevenoak	Plane Geometry
Slaught & Lennes	High School Algebra
Wells	New Higher Algebra
Wells	Plane Trigonometry with Tables
Wentworth	Elements of Algebra
Wentworth	Plane and Solid Geometry
Wentworth	Plane and Spherical Trigonometry

Supplementary Books:

Bailey & Woods	Analytic Geometry
Crawley	Elements of Trigonometry
Crawley	Table of Logarithms
Estill	Numerical Problems in Plane Geometry
Fine	College Algebra
Fisher & Schwatz	Quadratics and Beyond
Hall & Knight	Algebraical Exercises and Examination Papers
Hawkes	Advanced Algebra
Holton	Shop Mathematics
Jones	Drill Book in Algebra

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AUTHOR.	TITLE.
Leighton	Harvard Examination Papers
Longmans	School Mensuration
Longmans	Four Place Log. Tables
Phillips & Strong	Elements of Trigonometry
Phillips & Strong	Trigonometry with Tables
Sheperd	Problems in Strength of Materials
Wells	Algebra for Secondary Schools
Wells	College Algebra
Wells	Plane and Solid Geometry
Wells	New Plane and Spherical Trigonometry
Wells	Logarithmic Tables
Wentworth	Arithmetic Problems
Wentworth	College Algebra
Wentworth	Geometrical Exercises

SCIENCE.

Text-Books:

Atkinson	First Studies in Plant Life
Bailey	Beginner's Botany
Bergen	New Botany (Principles of Botany)
Bergen & Davis	Laboratory and Field Manual of Botany
Brownlee	First Principles of Chemistry
Carhart & Chute	High School Physics
Comstock	Astronomy
Conn	Bacteria, Yeasts, and Molds in the Home
Cooley	Student's Manual of Physics
Davis	Physical Geography
Dryer	Lessons in Physical Geography
Eddy	Text Book in General Physiology
Fairbanks	Physiography
Forman	Advanced Physics
Hall & Bergen	Physics
Harris	Chemical Analysis
Hessler & Smith	Essentials of Chemistry
Higgins	Lessons in Physics
Hough & Sedgwick	Elements of Hygiene and Sanitation
Irish	Qualitative Analysis
Jackson	An Elementary Book on Electricity and Magnetism
Jones	Heat, Light, and Sound
Miller	Progressive Problems in Physics
Milliken & Gale	First Course in Physics
Newell	Descriptive Chemistry
Newell	Experimental Chemistry

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AUTHOR.	TITLE.
Norton	Food and Dietetics
Osterhout	Experiments with Plants
Peabody	Studies in Physiology
Pierce	Problems in Elementary Physics
Smith	General Chemistry for Colleges
Tarr	New Physical Geography
Todd	New Astronomy
Wentworth & Hill	Text-Book of Physics
Wilson	Laboratory Manual in Astronomy

Supplementary Books:

Appleton	Handbook of Chemistry
Appleton	School Physics
Atkinson	Lessons in Botany
Avery	School Physics
Bailey	Lessons with Plants
Byrd	A Laboratory Manual in Astronomy
Coit	Chemical Arithmetic
Colton	Practical Zoölogy
Cooley	Student's Manual of Physics
Coulter	Plant Relations
Coulter	Plant Structures
Dana	Minerals and How to Study Them
Dobbin & Walker	Chemical Theory for Beginners
Gage	Principles of Physics
Gillett & Rolfe	Astronomy
Gray	Botany
Harris	Qualitative Analysis
Henderson & Woodhull	Elements of Physics
Hortvet	Elementary Practical Physics
Johnston	Chemistry of Common Life
LeConte	Compend of Geology
Lockyer	Astronomy
Lodge	Elements of Mechanics
Martin	The Human Body
Noyes	Qualitative Chemical Analysis
Orton	Comparative Zoölogy
Perkin & Lean	Introduction to Study of Chemistry
Remsen	Chemistry—Briefer Course
Remsen & Randall	Chemical Experiments
Richards	Chemistry of Cooking and Cleaning
Sabine	Laboratory Course in Physical Measurements
Seller	Qualitative Chemical Analysis
Thompson	A Nature Calendar
Tracey	Anatomy, Physiology and Hygiene
Walters	Physiology and Hygiene

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AUTHOR.	TITLE.
Williams	Elements of Chemistry
Young	Lessons in Astronomy

ART.

Hamlin	History of Architecture
Van Dyke	History of Painting

MUSIC.

Dann	School Hymnal
Tomlins	The Laurel Song Book
Tupper	First Year Harmony
Tupper	Student's Hymnary

MECHANICAL DRAWING.

Text-Books:

Atkinson, Mentzer, and Grover	Mechanical Drawing for High Schools, Part I.
Hoffman	Elementary Machine Design
Mathewson	Notes for Mechanical Drawing

COMMERCIAL DEPARTMENT.

Text-Books:

Adams	Commercial Geography
Barnes	Complete Typewriting Instructor
Belding	Commercial Correspondence
Bullock	Introduction to Study of Economics
Coman	Industrial History of United States
Ellis	Practical Bookkeeping
Gano	Commercial Law
Gilbert & Brigham	Introduction to Physical Geography
Mills	Modern Business Penmanship
Moore	Commercial Arithmetic
Packard	New Commercial Arithmetic
Pitman	Course in Isaac Pitman Shorthand
Pitman	Progressive Dictator
Redway	Commercial Geography
Webster	General History of Commerce
Williams & Rogers	New Practical Grammar and Correspondence
Williams & Rogers	Business Correspondence
Williams & Rogers	Seventy Lessons in Spelling
Williams & Rogers	Test Questions in Commercial Law

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AUTHOR.	TITLE.
Supplementary Books:	
Clow	Introduction to Study of Commerce
Gonner	Commercial Geography
Smith	Proof Reading and Punctuation
Thurston	Economics and Industrial History
Webster	Little Gem Dictionary
Willoughby	Rights and Duties of American Citizenship

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LOCATION OF PUBLIC SCHOOLS.

WITH THE AREA OF THEIR LOTS AND THE TERRITORIAL BOUNDARIES OF THE DISTRICTS.

CENTRAL HIGH SCHOOL.—On the south side of State street, between School and Maple streets. Area of lot, 80,114 square feet.
District: The whole city.

HIGH SCHOOL OF COMMERCE.—In Central High School building.
District: The whole city.

TECHNICAL HIGH SCHOOL.—On the east side of Elliott street. Area of lot, 61,700 square feet.
District: The whole city.

VOCATIONAL SCHOOL.—36 Taylor street (rented).

OPEN-AIR SCHOOL.—On the west side of Chestnut street, between Harriet and Cumberland streets.
District: The whole city.

ALDEN STREET PRIMARY SCHOOL.—Alden street, near the junction of Walnut and Hancock streets. Area of lot, 18,767 square feet.

This district, on the east, commences at the junction of Mill and Walnut streets, extends along Walnut to Florence, along Florence (not including it) to Hancock, Hancock to Ashley, Ashley to Cedar, Cedar to Lebanon (from Nos. 11-101), James, Queen, King (Nos. 12-144), Lebanon place, Hancock, Alden (from Walnut to Nos. 78 and 85 not inclusive), Greene (Nos. 17-44).

This district also includes the territory bounded by Hancock, Florence, Walnut and Hickory streets (including these streets, except Florence); also Cottage avenue.

ARMORY STREET PRIMARY AND GRAMMAR SCHOOL.—On the west side of Armory street a short distance north of its junction with Liberty street. Area of lot, 131,860 square feet.

This district is bounded on the south by the Boston and Albany railroad, on the west by Cass street (including it from Linden to Liberty street). No northern and eastern boundaries are fixed.

BARROWS GRAMMAR SCHOOL.—On the southeast corner of Oak and Tyler streets, near the junction of Oak and Walnut streets. Area of lot, 37,637 square feet.

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Children of grades V. to VII. residing in the Strickland and East Union street school districts attend this school.

The southern boundary line of this district extends from Pine street along Cedar and Lebanon (not including the last two) to Hancock, thence along Hancock street to Alden street, and along Alden street (not including it) easterly to Watershops pond. Colton street is also included in this district.

All the streets mentioned above are included in this district, except when otherwise stated.

Pupils of grade VII. residing in the section of the Tapley school district east of Florida street and north of St. James avenue (including it) may attend the Barrows school.

Belmont Avenue Primary School.—On the north side of Belmont avenue, between Keith street and Euclid avenue. Area of lot, 21,026 square feet.

This district is bounded on the north by Mill river, on the west by the Connecticut river and on the south by Forest Park. The eastern boundary line extends from Mill river along Fort Pleasant avenue to Forest Park avenue to Forest Park.

Boston Road Primary and Grammar School.—On the north side of Boston road, a little east of Jasper street, about four miles from Court Square. Area of lot, 43,560 square feet.

Brightwood Primary and Grammar School.—At Brightwood, northeast corner of Plainfield street and Talcott avenue. Area of lot, 32,646 square feet.

This district includes the village of Brightwood. The eastern boundary is the Boston and Maine railroad. The southern boundary is Lowell and Plainfield streets to the railroad, including Lowell street.

Buckingham Grammar School.—On the southeast corner of Eastern avenue and Wilbraham road near Winchester Park. Area of lot, 37,114 square feet.

This district is bounded on the north by St. James avenue from the Boston and Albany railroad to Florida street. On the west the line extends from St. James avenue along Florida street (not including it) to Bay street, along Bay and Pleasant streets (not including them) to State street; thence through the middle of State street to Hancock, along Hancock (not including it) to Monroe; along Monroe to the railroad.

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East of the New England railroad, for grades VI. to IX., inclusive, this district includes the territory from Bay to King streets, inclusive.

Pupils of grades VIII. and IX. residing in that part of the Barrows school district bounded by Wilbraham road, Eastern avenue, and Beacon street (including these streets) attend this school. Pupils in grades VIII. and IX. residing in the Boston Road district attend this school.

CAREW STREET PRIMARY AND GRAMMAR SCHOOL.—On the south side of Carew street, near Main street. Area of lot, 36,000 square feet.

This district is bounded on the north by Sargeant, Carew, and Arbor streets (including them); on the east by Cass street north of Linden (including it). Thence the boundary line extends along Linden to Chestnut street and down Chestnut to Tenth street, through Tenth and Vine streets (including them). The western boundary is the Boston and Maine railroad.

Pupils of grades I. to V., inclusive, residing on Emery and Clinton streets attend this school.

CENTRAL STREET PRIMARY AND GRAMMAR SCHOOL.—Corner of Central and Spruce streets. Area of lot, 49,154 square feet.

The northern boundary line of this district extends from Maple street along Central to Cedar, along Cedar and Lebanon to Hancock, along Hancock (not including it) to Alden, along Alden street easterly (including the streets mentioned except where otherwise stated); on the west the line extends from the junction of Maple and Central streets, along by the foot of the hill west of Maple street to Locust street; on the south by Mill river from Locust street to Allen street, no boundary being fixed for the eastern side of the district. This district also includes Madison avenue and Sterns terrace.

The easterly half of Central street, between Main and Maple streets, is regarded as belonging to Central street district for those who prefer it on account of its nearness.

Pupils of grades I. to IV., inclusive, residing in that part of the Alden street district which lies within the boundaries of the Central street district attend the Alden street school.

Pupils of grades I. to V., inclusive, residing in that part of the Eastern avenue district which lies within the boundaries of the Central street district attend the Eastern avenue school.

CHARLES STREET PRIMARY SCHOOL.—On the north side of Franklin street, opposite Charles street. Area of lot, 9,951 square feet.

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This district is bounded on the north by Tenth street (not including it); on the east by Cass street, south of Linden, Webster and Vinton streets, and Liberty street west of Webster street (including them); on the south by the Boston and Albany railroad; on the west by a line cutting Greenwood and Franklin streets at Nos. 93 and 94 (not including them), Congress street east of Nos. 58 and 59 (including them), and by Chestnut street from Tenth street to the Boston and Albany railroad.

The district includes Cass street south of Linden, Webster, Vinton, Liberty street west of Webster, Chestnut street south of Tenth and north of the Boston and Albany railroad. It also includes Greenwood and Franklin streets east of Nos. 93 and 94 (not including these numbers), and Congress street east of Nos. 58 and 59 (including them).

CHESTNUT STREET GRAMMAR SCHOOL.—On the east side of Chestnut street, near Prospect street. Area of lot, 138,794 square feet.

This district includes all the territory in the northern part of the city, the southern boundary being the Boston and Albany railroad.

Pupils of grades VI. and VII. residing in those parts of this district which are included in the Lincoln, Worthington street and Armory street districts attend the latter schools.

EASTERN AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the corner of Eastern avenue and Alden street. Area of lot, 27,720 square feet.

This district is bounded on the north by King street, from Nelson avenue to its easterly terminus; on the west by Nelson avenue from King to Greene street, thence the boundary line extends along Greene street to Eastern avenue, along Eastern avenue to Manhattan, along Manhattan to Walnut, along Walnut to Hickory, along Hickory east, no easterly boundary being fixed for the district. All the foregoing streets, except Walnut, are included in this district, as also Alden street east of and including Nos. 78 and 85. Cottage avenue is not included in this district.

For grades IV. and V., this district includes Lebanon place, Lebanon street (between Nelson avenue and Hancock street), and Hancock street between King and Alden streets.

EAST UNION STREET PRIMARY SCHOOL.—On the north side of Union street, between Hancock street and Eastern avenue. Area of lot, 25,779 square feet.

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The boundary line of this district extends from State street along Hancock street to Monroe street, along Monroe street to Eastern avenue, thence along Eastern avenue to Wilbraham road, along Wilbraham road to the railroad, along the railroad to King street, along King street (not including it) to Hancock street, and along Hancock to State street before mentioned, including all the streets mentioned except where otherwise stated.

FOREST PARK GRAMMAR SCHOOL.—On Garfield street, off Belmont avenue. Area of lot, 118,960 square feet.

All the children of grades VI. to IX. living in the Belmont avenue and Kensington avenue school districts, and all children of grades VII. to IX. living in the White street school district will attend this school.

HOMER STREET PRIMARY AND GRAMMAR SCHOOL.—On Homer street, between State street and Wilbraham road. Area of lot, 52,200 square feet.

This district is bounded on the west by the New England railroad, except that Cambridge street, Dawes street, Andrew street north of Burr, and Burr street between Cambridge and the New England railroad, are not included in this district; on the north by Bay street (including it); on the south by the Eastern avenue district, no boundary being fixed for the eastern side of the district.

HOOKER PRIMARY AND GRAMMAR SCHOOL.—On the east side of Main street, between Tenth and Greenwood streets. Area of lot, 33,411 square feet.

This district is bounded on the north by Tenth and Vine streets (not including them); on the east by a line cutting Greenwood and Franklin streets at Nos. 93 and 94 (including them), Congress street at Nos. 58 and 59 (not including them), Sharon street at Nos. 135 and 136 (not including them), Ferry street at Nos. 169 and 172 and Liberty street at No. 76 (including them); on the south by the Boston and Albany railroad; on the west by Fulton street from Vine street to Cypress street (not including Clinton and Emery streets); Main street from Tenth street to the arch is included in this district.

For grades IV. and V., this district is bounded on the east by Chestnut street between Tenth and Sharon streets.

This district includes Congress street in grades IV. and V.

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This district includes pupils of grades I. to III., inclusive, living south of the Boston and Albany railroad, west of Main street, and north of Bridge street (not including it).

HOWARD STREET PRIMARY AND GRAMMAR SCHOOL.—On the south side of Howard street. Area of lot, 51,029 square feet.

This district is bounded on the north by Bridge street (not including it between Main and Chestnut streets); on the east by Chestnut and Maple streets (not including these streets) from Bridge street to Cross street; on the south by Cross and Howard streets.

Children of grades VI. and VII. living in the South Main street school district and children of grades IV. A to VII. living in the William street school district also attend this school.

All the streets mentioned above are included in this district, except when otherwise stated.

The easterly half of Central street, between Main and Maple streets, is regarded as belonging to Central street district for those who prefer it on account of its nearness.

INDIAN ORCHARD PRIMARY AND GRAMMAR SCHOOL.—At the corner of Worcester and Myrtle streets, Indian Orchard village. Area of lot, 40,736 square feet.

This district includes the village of Indian Orchard, except that for primary grades it includes only the section west of Cedar street.

INDIAN ORCHARD PRIMARY SCHOOL.—Main street, Indian Orchard village. Area of lot, 22,500 square feet.

This district includes that part of the village (for primary grades only) lying east of Cedar street (not including it).

JEFFERSON AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the south side of Jefferson avenue, corner of North street. Area of lot, 21,079 square feet.

This district is bounded on the north by Calhoun and Huntington streets (including them); on the west by the Boston and Maine railroad, on the south by Sargeant and Carew streets (not including them), no eastern boundary being fixed for this district.

KENSINGTON AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the south side of Kensington avenue, between Earl and Oakland streets. Area of lot, 90,418 square feet.

This district is bounded on the north by Mill river and on the south by Forest Park. The eastern boundary line extends from Mill river along White street to Pasadena street, along Pasadena street

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to Alderman street, along Alderman street to Ventura street, along Ventura street to Sumner avenue, along Sumner avenue to Dickinson street, and along Dickinson street to Longmeadow line.

The western boundary line extends from Mill river along Fort Pleasant avenue and Forest Park avenue to Forest Park; exclusive of Belmont avenue from No. 176 to Mill street; Woodside terrace, Leyfred terrace, and Blake hill; also the area bounded by Garfield street, Churchill street, Sumner avenue and Forest Park avenue.

LINCOLN PRIMARY AND GRAMMAR SCHOOL.—On the west side of Chestnut street, between Harriet and Cumberland streets. Area of lot, 94,090 square feet.

This district is bounded on the west by the Boston and Maine railroad, on the south by Calhoun and Huntington streets (not including them), no boundaries being fixed for the northern and eastern sides of this district.

Pupils of grades V. to VII. living in the Brightwood district attend this school.

SCHOOL STREET PRIMARY AND GRAMMAR SCHOOL.—Southeast corner of School and High streets. Area of lot, 86,156 square feet.

This district is bounded on the north by Pearl street (not including it), and by State from Byers street to Walnut street; on the west by Chestnut and Maple streets, from Pearl to Avon place; on the south by Avon place, Mulberry and Union streets to Walnut, and on the east by Walnut street (not including it), including the streets mentioned, except when otherwise stated.

SOUTH MAIN STREET PRIMARY AND GRAMMAR SCHOOL.—On the east side of Main street, corner of Acushnet avenue. Area of lot, 18,850 square feet.

For primary grades, this district is bounded on the north by Whitney avenue, Fremont and Central streets (not including these streets); on the east by the Central street district; on the south by Mill river.

For grades IV. and V., the northern boundary of this district is Fremont and Central streets (including them); on the east and south the same as for primary grades.

STATE STREET GRAMMAR SCHOOL.—On the south side of State street, west of the Central high school. Area of lot, 30,778 square feet.

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This school is for pupils of grades VIII. and IX. only, residing in the Barrows, Howard street, and that part of the Worthington street district south of the railroad, and in that part of the Tapley district east of Florida street and north of St. James avenue (including it). Pupils of grades VII., VIII., and IX., residing in the School street district, also attend this school.

STRICKLAND PRIMARY AND GRAMMAR SCHOOL.—On the southwest corner of Oak and Union streets. Area of lot, 6,050 square feet.

This district is bounded on the north by the Boston and Albany railroad. The eastern boundary extends from the railroad to Florida street, and along Florida street (not including it) to Bay street, along Bay and Pleasant streets (not including them) to State street, thence through the middle of State street to Hancock street, and along Hancock (not including it) to King street. On the south the district is bounded by King and James streets (not including them); on the west the line extends from the railroad to Federal street, along Federal and Walnut streets (including them) to Pine street, and along Pine street (including it) to Cedar street.

SUMNER AVENUE PRIMARY AND GRAMMAR SCHOOL.—On the south side of Sumner avenue between Beechwood avenue and Long Hill street. Area of lot, 85,300 square feet.

This district is bounded on the north by Mill river; on the east by Fort Pleasant avenue and Forest Park avenue; on the west by the Connecticut river; and on the south by Forest Park. In addition the district shall include Belmont avenue from No. 176 to Mill street; Woodside terrace, Leyfred terrace, and Blake hill; also the area bounded by Garfield street, Churchill street, Sumner avenue and Forest Park avenue, inclusive.

TAPLEY PRIMARY AND GRAMMAR SCHOOL.—On the southwest corner of Bay and Sherman streets. Area of lot, 45,083 square feet.

This district is bounded on the north by the Boston and Albany railroad. On the west the line extends from the railroad to Florida street, and along Florida street (including it) to Bay street. Thence the line extends through Bay and Pleasant streets (including them) to State street, thence along State street (including it, except the south side between Stebbins and Hancock streets) to the New England railroad (including Winchester and Hawley streets). This district is bounded on the east by the New England railroad,

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except that Cambridge street, Dawes street, Andrew street north of Burr, and Burr between Cambridge and the New England railroad, are included in this district.

WHITE STREET PRIMARY AND GRAMMAR SCHOOL.—On the west side of White street between Dawson avenue and Buckler street. Area of lot, 100,000 square feet.

This district is bounded on the north by the Watershops pond; on the west the boundary line extends from the Watershops pond along White street to Pasadena street, along Pasadena street to Alderman street, along Alderman street to Ventura street, and along Ventura street to Sumner avenue, along Sumner avenue to Dickinson street, along Dickinson street to the Longmeadow line. On the south this district is bounded by Longmeadow, no eastern boundary being fixed.

WILLIAM STREET PRIMARY SCHOOL.—On the south side of William street between Main and Water streets. Area of lot, 35,701 square feet.

This district is bounded on the north by Howard and Cross streets (not including them); on the east by Maple street (not including it); and on the south by Whitney avenue, Fremont, and Central streets, including these streets.

WORTHINGTON STREET PRIMARY AND GRAMMAR SCHOOL.—On the south side of Worthington street, east of Spring street. Area of lot, 38,500 square feet.

This district includes, north of the Boston and Albany railroad, pupils of grades I. to VII., inclusive, living on Sharon street east of Nos. 135 and 136 (including them); on Ferry street east of Nos. 169 and 172 (not including it); and on Liberty street at No. 76 (not including it) and Chestnut street. It also includes pupils of grades IV. to VII., inclusive, living on Chestnut street south of Sharon street.

On the south side of the Boston and Albany railroad, the boundary line for grades I. to VII., inclusive, extends along the Connecticut river to Bridge street, along Bridge street to Chestnut, including Bridge street only from Main to Chestnut; thence along Chestnut to Pearl, along Pearl to Federal, and along Federal to the Boston and Albany railroad, all the streets named being included.

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Pupils of grades I. to III., inclusive, residing in that portion of the Worthington street school district west of Main street and south of the Boston and Albany railroad attend the Hooker school.

Dry Bridge Ungraded School.—On St. James circle near St. James avenue. Area of lot, 11,434 square feet.

Five Mile Pond Ungraded School.—At Dimmock's Corner, on the Boston road about five miles from Court Square. Area of lot, 18,887 square feet. (Closed.)

Glenwood Ungraded School.—On the north side of Springfield street, near its junction with Armory street, and near the Chicopee line. Area of lot, 43,656 square feet.

Sixteen Acres Ungraded School.—Near Sixteen Acres pond, and near the junction of North Wilbraham road with the road leading from Ludlow to East Longmeadow, about six miles from Court Square. Area of lot, 15,056 square feet.

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STATISTICS OF THE

SPRINGFIELD HIGH SCHOOLS.

CENTRAL HIGH SCHOOL

FROM ITS ORGANIZATION IN 1849 TO 1911.

YEAR.	Number of Pupils.	Number of Graduates.	YEAR.	Number of Pupils.	Number of Graduates.
1849	158		1881	372	46
1850	170		1882	346	44
1851	185		1883	322	42
1852	159		1884	322	49
1853	170		1885	348	34
1854	176		1886	379	43
1855	186		1887	372	61‡
1856	166	9*	1888	370	52
1857	156	14	1889	344	61
1858	172	14	1890	345	45
1859	166	17	1891	391	56
1860	173	25	1892	408	52
1861	163	13	1893	429	53
1862	177	17	1894	468	53§
1863	174	15	1895	483	51
1864	162	5	1896	484	58
1865	146	21	1897	525	86
1866	137	10	1898	569	83
1867	148	12	1899	622	70
1868	195	16	1900	657	124
1869	217	2†	1901	704	84
1870	207	14	1902	751	103
1871	181	19	1903	763	111
1872	172	24	1904	890	120
1873	185	21	1905	975	133
1874	201	20	‖1906	677	158
1875	246	16	1907	622	130
1876	336	33	1908	641	112
1877	354	27	1909	771	132
1878	407	51	1910	767	120
1879	426	54	1911	813	91
1880	405	58			

TECHNICAL HIGH SCHOOL.¶

1899	18		‖1906	624	14
1900	61		1907	675	66
1901	77	2	1908	787	78
1902	90	8	1909	928	65
1903	120	16	1910	1,051	88
1904	162	18	1911	669	60
1905	180	18			

HIGH SCHOOL OF COMMERCE.

1911	480	40

*Previous to this date there were no graduating exercises

†The course was changed this year from three to four years.

‡This was the first year that any pupils were graduated in the two-years' Business Course.

§The Business Course was abolished after 1894.

¶The Technical High School was organized in August, 1898.

‖ Commercial Department transferred from Central High to Technical High in September, 1906.

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TABLES SHOWING THE GRADUAL DROPPING OUT OF PUPILS IN THE VARIOUS GRADES.

NUMBER OF PUPILS IN EACH GRADE.

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	Freshman.	Sophomore.	Junior.	Senior.	Post Grad.
January, 1891,	1234	766	681	577	511	408	295	260	221					
January, 1892,	1307	893	841	541	522	468	327	245	222					
January, 1893,	1311	1013	918	648	483	477	350	236	230					
January, 1894,	1434	990	996	659	584	505	342	238	248					
September, 1894,	1618	936	1030	795	640	530	350	286	250	174	154	69	63	
September, 1895,	1539	1053	1035	794	724	513	445	277	263	177	126	96	65	
September, 1896,	1723	1020	1180	817	785	621	460	283	258	204	118	86	104	
September, 1897,	1731	1134	1211	980	789	754	474	381	274	206	159	93	83	15
September, 1898,	1775	1145	1287	965	875	657	635	382	299	227	159	123	80	22
September, 1899,	1789	1174	1243	1029	952	786	559	486	380	243	174	130	114	13
September, 1900,	1717	1068	1294	1107	904	884	621	463	380	293	206	142	83	28
September, 1901,	1717	1265	1226	1152	1024	892	759	548	378	298	212	168	104	26
September, 1902,	1685	1297	1276	1088	1135	903	768	655	416	316	214	179	124	27
September, 1903,	1773	1319	1180	1341	1072	986	799	633	464	390	260	172	132	16
September, 1904,	1610	1314	1265	1260	1025	984	912	639	478	433	335	207	121	26
September, 1905,	1663	1293	1271	1266	1140	977	881	661	560	350	248	229	132	16
September, 1906,	1484	1375	1267	1249	1151	1025	941	712	514	509	338	236	185	16
September, 1907,	1565	1348	1283	1221	1203	1059	970	792	593	464	353	272	176	16
September, 1908,	1679	1515	1225	1339	1134	1164	974	914	650	584	363	292	192	38
September, 1909,	1850	1395	1352	1264	1176	1122	995	924	741	638	409	299	225	35
September, 1910,	1774	1404	1402	1303	1200	1148	1052	863	761	694	455	338	181	37
September, 1911,	1731	1543	1373	1347	1300	1076	1058	926	716	729	492	366	236	25

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EXPENDITURES, SCHOOL POPULATION, AND ENROLLMENT.

From the Organization of the City in 1852 to 1911.

From 1852 to 1856 expenditures for repairs were included in current expenses.
The Manual Training School was established in 1886 (reorganized as the Mechanic Arts High School in 1898); the Cooking School in 1893; and the public Kindergarten in 1894. The amounts expended under these heads are included under "Current Expenses."

YEAR.	Current Expenses.	Repairs and Alterations.	New Buildings.	School Census.	Enrollment.	Aver. No. Belonging.
1852	$6,558 89	.....	.....	2,188	2,270	1,549
1853	13,257 31	.....	.....	2,253	2,273	1,642
1854	15,049 89	.....	.....	2,449	2,561	1,621
1855	16,451 22	.....	.....	2,611	2,409	1,769
1856	17,501 08	.....	.....	2,606	2,441	1,815
1857	18,727 67	$4,146 81	$6,403 47	2,525	2,459	1,824
1858	18,494 40	3,144 54	671 00	2,675	2,569	1,862
1859	18,315 77	2,939 82	1,553 16	2,505	2,546	1,855
1860	18,115 04	3,532 04	.....	2,472	2,594	1,934
1861	17,961 30	2,956 24	.....	2,688	2,752	1,959
1862	19,358 08	2,601 92	.....	3,090	3,027	2,133
1863	22,361 56	939 55	.....	3,341	3,808	2,342
1864	29,941 54	5,662 30	10,645 00	3,709	3,753	2,298
1865	37,242 93	5,516 10	53,969 78	3,713	3,822	2,490
1866	48,542 28	5,728 90	59,062 72	3,846	3,675	3,187
1867	54,423 56	3,718 32	41,267 84	4,225	3,760	3,266
1868	66,544 60	7,529 04	62,270 59	4,141	4,029	3,304
1869	68,524 83	7,778 57	34,285 49	4,156	4,617	3,509
1870	73,636 97	4,027 70	12,444 57	4,232	4,679	3,822
1871	79,489 26	4,096 28	28,490 00	4,167	4,901	3,717
1872	92,286 88	5,066 27	71,202 63	4,331	4,853	3,674
1873	96,389 77	16,760 80	53,095 82	4,399	5,238	3,900
1874	110,066 43	16,545 76	69,979 01	4,712	5,448	4,071
1875	115,788 04	21,958 95	17,098 73	5,668	5,743	4,296
1876	106,949 96	5,221 48	.....	5,408	5,840	4,481
1877	89,489 74	2,938 91	.....	5,375	5,877	4,615
1878	83,087 62	1,706 02	.....	5,379	5,625	4,298
1879	81,780 65	2,528 04	.....	5,524	5,636	4,475
1880	83,053 74	7,497 14	1,169 69	5,865	5,834	4,538
1881	88,267 73	9,240 86	.....	6,285	5,981	4,667
1882	92,081 29	9,068 23	.....	6,452	6,054	4,727
1883	98,624 26	10,672 68	17,228 99	6,566	6,070	4,661
1884	107,523 96	10,159 73	7,664 96	6,583	5,520	4,327
1885	111,851 90	7,490 23	1,626 17	6,330	5,665	4,517
1886	109,990 53	7,021 26	.....	6,472	5,813	4,648
1887	115,749 65	9,399 94	19,053 56	6,516	5,841	4,643
1888	124,739 06	9,348 20	30,712 40	6,416	5,922	4,647
1889	134,938 12	9,314 65	39,072 98	6,935	6,165	4,982
1890	146,488 62	16,208 53	48,943 67	7,054	6,455	5,180
1891	157,644 68	17,630 70	76,052 19	7,134	6,467	5,217
1892	163,570 40	10,447 98	13,829 18	7,318	6,970	5,585
1893	172,296 48	11,549 10	26,314 01	7,716	7,225	5,799
1894	184,592 41	10,995 75	46,562 87	8,002	7,637	6,340
1895	198,620 20	13,647 77	26,758 82	8,041	8,304	6,810
1896	219,531 84	8,911 17	43,878 11	8,307	8,717	7,266
1897	239,679 72	16,095 08	238,196 30	8,814	9,488	7,869
1898	262,972 39	38,881 78	363,249 04	9,202	10,044	8,260
1899	302,854 35	12,706 09	71,783 82	9,738	10,786	9,072
1900	321,804 66	11,437 20	81,698 41	10,251	11,261	9,300
1901	339,677 59	24,030 85	94,340 94	10,405	11,574	9,612
1902	351,999 63	13,167 60	96,268 67	10,899	12,162	10,206
1903	359,317 47	15,438 28	100,385 33	11,490	12,542	10,290
1904	399,359 63	17,847 82	87,274 88	11,738	12,842	10,818
1905	400,821 51	18,216 94	256,946 05	*13,059	13,161	11,183
1906	445,208 90	20,071 47	149,771 35	*13,359	13,601	11,372
1907	460,834 73	21,552 30	122,727 70	*13,786	13,796	11,516
1908	513,027 92	25,613 77	139,180 18	*14,091	14,451	12,378
1909	537,118 63	26,425 33	46,449 47	*14,335	14,968	12,808
1910	583,030 40	29,136 91	43,141 00	*14,659	15,576	13,024
1911	622,855 80	28,458 83	88,861 00	*15,221	16,074	13,550

*From five to sixteen years of age.

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TABLE GIVING A BRIEF DESCRIPTION OF SCHOOL PROPERTY; ALSO THE VALUE OF SCHOOLHOUSES AND LOTS, ETC.

BUILDINGS.	Wood or Brick.	No. of Stories.	No. of School-Rooms.	No. of Recitation Rooms.	No. of Desks and Seats.	Condition.	Date of Occupation.	Heating Apparatus.	Value of Land.	Value of Buildings.	Value of Furniture.	TOTAL.	Area Lots. (Square Feet.)
Alden Street	B	2	4		168	Good	1890	Steam	$2,500 00	$14,000 00	$306 00	$16,806 00	18,767
Armory Street	B	2	21	2	517	New	1901	Steam	4,500 00	145,300 00	2,633 26	152,433 26	131,860
Barrows	B	3	10	1	460	Good	1868	Steam	6,000 00	39,000 00	789 13	45,789 13	37,637
Belmont Avenue	W	2	4		168	Good	1893	H. A.	2,500 00	5,400 00	200 00	8,100 00	21,026
Boston Road	W	2	2		160	New	1899	H. A.	500 00	6,900 00	1,100 00	8,500 00	43,560
Brightwood	B	2	7	2	334	Good	1899	Steam	3,000 00	34,800 00	1,430 00	39,230 00	32,646
Buckingham	B	2	12	2	539	Good	1891	H. A.	11,000 00	48,000 00	2,351 00	61,351 00	37,114
Carew Street	B	2	12	2	571	Good	1894	H. A.	8,500 00	45,000 00	946 00	54,446 00	36,000
*Carlisle	B	2	1			Good		Stove	1,000 00	200 00		1,200 00	43,569
Central Street	B	3	16		623	Good	1871	Steam	9,000 00	64,000 00	1,708 15	74,708 15	49,154
Charles Street	B	2	4		184	Good	1890	Steam	1,700 00	14,000 00	248 00	15,948 00	9,951
Chestnut Street	B	3	37		1,161	New	1903	Steam	41,000 00	244,000 00	6,273 78	291,273 78	138,794
*Dry Bridge	W	1	1			Good	1881	Stove	300 00	1,200 00	125 00	1,625 00	11,434
Eastern Avenue	B	2	7	2	254	Good	1899	H. A.	3,200 00	30,000 00	1,074 00	34,274 00	27,720
East Union Street	B	2	8	2	294	Good	1876	Steam	2,700 00	23,000 00	1,235 00	26,935 00	25,779
**Emery Street	B	2	4		172	Fair		Stove	2,500 00	5,000 00		7,500 00	6,819
*Five Mile Pond	B	2	1		39	Good		Stove	100 00	2,000 00	45 00	2,145 00	18,887
Forest Park	B	3	18	1	717	Good	1899	Steam	19,000 00	85,000 00	2,400 00	106,400 00	118,960
Glenwood	B	2	4		168	New	1903	Steam	1,500 00	16,000 00	747 31	18,247 31	43,656
High (Central)	B	3	16	20	776	Good	1898	Steam	100,000 00	350,000 00	15,000 00	465,000 00	80,114
High (Technical)	B	3	18	2	787	New	1906	H. W.	30,000 00	280,000 00	18,601 14	328,601 14	61,700
Homer Street	B	2	9	2	348	Good	1898	Steam	8,000 00	36,000 00	1,737 00	45,737 00	52,200
Hooker	B	3	14	2	584	Good	1866	Steam	50,000 00	60,000 00	2,315 00	112,315 00	33,411
Howard Street	B	2	17	2	646	New	1906	Steam	13,000 00	46,000 00	2,825 00	61,825 00	51,029
I. O. Grammar	B	3	13	2	382	Good	1868	Steam	4,000 00	65,000 00	1,423 00	70,423 00	40,736
I. O. Primary	W	2	4	1	235	Good	1898	H. A.	1,200 00	12,000 00	720 00	13,920 00	22,500
Jefferson Avenue	B	2	9	2	400	Good	1889	Steam	7,000 00	40,000 00	1,000 00	48,000 00	21,079
Kensington Avenue	B	2	16		472	New	1909	Steam	8,500 00	98,086 74	3,152 75	109,739 49	90,418
Lincoln School	B	2	16		588	New	1910	Steam	9,950 00	87,116 52	4,136 00	101,202 52	94,090
***Pynchon	B	2		1		Good	1891	H. A.	26,600 00	38,000 00		64,600 00	20,885
School Street	B	2	4		185	Good	1892	Steam	13,500 00	18,000 00	600 00	32,100 00	86,156
Sixteen Acres	B	2	2	2	72	Good		Stove	100 00	2,000 00	42 00	2,142 00	15,056
South Main Street	B	2	13	10	510	Good	1896	Steam	10,000 00	45,000 00	2,400 00	57,400 00	18,850
State Street	B	3	6	3	541	Good	1874	Steam	44,000 00	78,000 00	3,025 00	125,025 00	30,778
Strickland	B	2	6	2	259	Good	1884	H. A.	3,000 00	20,000 00	613 00	23,613 00	6,050
Sumner Avenue									10,300 00	30,316 00		40,616 00	85,300
Tapley	B	2	14	2	608	Good	1888	Steam	10,000 00	70,000 00	2,469 91	82,469 91	45,083
*Wachogue	W	1	1	2	40	Fair		Stove	100 00	800 00	35 00	935 00	8,275
White Street	B	2	14	1	378	New	1905	Steam	4,500 00	49,500 00	2,066 32	56,066 32	100,000
William Street	B	2	11		406	New	1901	Steam	8,000 00	58,000 00	2,200 00	68,200 00	35,701
Worthington Street	B	3	11		529	Good	1869	Steam	7,000 00	45,000 00	848 00	52,848 00	38,500
Office Building	W	2				Poor		Steam	7,900 00	3,000 00	1,200 00	12,100 00	6,872
York Street									2,000 00			2,000 00	15,000
			375	70	15,475				$499,150 00	$2,354,619 26	$90,020 75	$2,943,790 01	

*Unused.
**Used for Storehouse.
***Used by city for Municipal Building, Jan. 23, 1905.

Under Heating Apparatus, H. A.=Hot Air.
" " " H. W.=Hot Water.

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TEACHERS' SALARIES.

(Regular Maximum.)

High Schools:—	
Principals,	$2,600—$3,500
Teachers, men,	1,500—2,400
Teachers, women,	800—1,500
Teacher of Music (part time),	350
Grammar Schools:—	
Principals,	1,500—2,600
Principal's Assistant (Grade IX.),	850—900
Principals of Primary and lower Grammar Grades,	850—1,350
Principals of Primary Schools,	800—850
Teachers of Grades I.-VII., inclusive,	750
Assistants, not in charge of room,	450—650
Kindergartens:—	
Head Kindergartners,	650—750
Assistants,	450—550

Supervisors and Special Teachers.

Supervisor of Primary Grades,	$2,400
Supervisor of Drawing,	1,600
Assistant Supervisor of Drawing,	850
Supervisor of Music,	1,800
Assistant Supervisor of Music,	1,000
Supervisor of Elementary Science,	1,000
Supervisor of Physical Training,	2,000
Supervisor of Manual Training in Grammar Grades, and Principal of Vocational School,	2,300
Teacher of Sewing,	750
Assistant Teachers of Sewing,	700—800
Teachers of Manual Training in Grammar Grades,	900—1,400
Teachers of Cooking,	725—850

Assistants in Grades I.-VI. inclusive, salaries fixed by the Committee.

There are special maximum salaries, as follows: For Grades I.-VII., $800; for Grade VIII., $850; and for Grade IX., $900. These salaries are granted only to teachers who are doing work of superior excellence, and a unanimous vote of the entire Board, excepting the Mayor, is required to grant the whole or any portion of them.

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SALARIES OF JANITORS.*

Schools.	Salary per year.
Alden Street,	$600
Armory Street,	1,020
Barrows,	850
Belmont Avenue,	600
Boston Road,	500
Brightwood,	780
Buckingham,	1,020
Carew Street,	950
Central Street,	1,050
Charles Street,	600
Chestnut Street, Janitor,	700
Chestnut Street, Janitor,	700
Chestnut Street, Engineer,	1,000
Dry Bridge,	120
Eastern Avenue,	780
East Union Street,	780
Five Mile Pond,	120
Forest Park,	1,500
Glenwood,	500
High (Central), Engineer,	1,200
High (Central), Fireman,	840
High (Central), Janitor,	720
High (Central), Janitor,	720
High (Technical), Engineer,	1,200
High (Technical), Fireman,	900
High (Technical), Night Fireman and Watchman,	780
High (Technical), Janitor,	816
High (Technical), Janitor,	720
Homer Street,	800
Hooker,	1,020
Howard Street,	1,080
Indian Orchard Primary,	650
Indian Orchard Grammar,	1,010
Jefferson Avenue,	850
Kensington Avenue,	875
Lincoln School,	1,020
School Street,	600
Sixteen Acres,	150
South Main Street,	950
State Street,	750
Strickland,	700
Tapley,	1,050
White Street,	950
William Street,	950
Worthington Street,	950
Vernon Street Office,	834

*These salaries are determined by the City Government and include allowance for cleaning floors.

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SPRINGFIELD PUBLIC SCHOOLS.

RATES OF TUITION FOR NON-RESIDENT PUPILS.

DAY SCHOOLS.	First Term.	Second Term.	Third Term.	Fourth Term.	Year.
High Schools,	$40 00	$20 00	$20 00	$20 00	$100 00
Grammar Schools,	14 00	7 00	7 00	7 00	35 00
Primary Schools,	8 00	4 00	4 00	4 00	20 00
Ungraded Schools,	8 00	4 00	4 00	4 00	20 00

EVENING SCHOOLS.	FOR THE SEASON.
High,	$15 00
Grammar and Primary,	20 00
Draughting,	10 00
Free-hand Drawing,	10 00
Trade Classes,	20 00

Tuition is payable one term in advance. It should be paid directly to the City Collector at Municipal Building, who will give a receipt for it. Upon presentation of this receipt to the Superintendent a permit will be given the pupil for admission to school.

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FIRE COMMISSIONERS.

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REPORT OF THE

BOARD OF COMMISSIONERS

OF

THE FIRE DEPARTMENT.

To His Honor, the Mayor, and Members of the City Council.

The Board of Commissioners of the Fire Department herewith respectfully submit their annual report:—

MEMBERSHIP OF BOARD.

Edward A. McClintock, term expires first Monday of May, 1912.
Octave A. LaRiviere, term expires first Monday of May, 1913.
Charles F. Brown, term expires first Monday of May, 1914.
Frank H. Wesson, term expires first Monday of May, 1915.
John A. Denison, Alderman and Chairman of the Fire Department Committee of City Government, *ex officio.*

Organization: Edward A. McClintock, Chairman, and Frank H. Wesson, Secretary; John M. Taylor, Clerk.

EXPENSES.

The expenses for the closing fiscal year exceeded those of the preceding year by about $40,000, the increase, however, being due to expansion on the part of the department and not to an increase in the cost of maintenance. New apparatus, costing about $26,000, has been purchased, the money for the

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purchase being provided by an extra appropriation of $12,000, an unusual total of receipts brought about by the sale of horses, old buildings on the Pine street property and discarded material, all amounting to over $5,000, and by savings in the appropriations for forage and buildings. The remainder of the extra expenditure was caused by the addition of permanent men to the department with a resulting increase in the pay roll and the fact that there were this year 53 pay rolls instead of the ordinary 52, an event that occurs periodically every few years. These things together made an increase in the pay roll of $14,000, this amount with the $26,000 expended for new apparatus accounting for the extra expenditure of $40,000.

BUILDINGS.

Since the report of last year was written the new headquarters building at Court and Water streets has been completed and is now occupied.

Extensive alterations have been made in the Pine street house, changing it from a house arranged for horse apparatus to a modern three-way station arranged solely for motor apparatus. This station is now ready for occupancy.

The new station at the corner of North and Patton streets is under construction, having already been erected to the height of the second story, and the building will undoubtedly be ready for occupancy early in the summer. This building will replace the present Bond street station, which will be abandoned.

APPARATUS.

We present herewith an inventory of the apparatus under the control of this department, which is stationed as follows:—

Armory street: one horse-drawn combination hose and chemical wagon, one horse-drawn steam fire engine, one horse-drawn supply wagon, and one sleigh.

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Bond street: one horse-drawn combination hose and chemical wagon, one horse-drawn steam fire engine (spare), one horse-drawn supply wagon, and one sleigh.

Boston road: one hand hose-reel.

Chestnut street: one chiefs' car, one motor combination hose and chemical car, one motor auxiliary squad car, and one motor spare car.

Court street: two chiefs' cars, one motor aerial hook and ladder truck, one motor combination hose and chemical car, one motor runabout car (Supt. Fire Alarm), one motor truck for fire alarm service, and one water tower.

Indian Orchard: one horse-drawn steam fire engine, one horse-drawn combination hose and chemical wagon, one horse-drawn hook and ladder truck, one supply wagon, one sleigh, and one horse-drawn chiefs' wagon.

Margaret street: one motor combination hose and chemical car and one spare horse-drawn steam fire engine.

Mill street: one horse-drawn steam fire engine, one horse-drawn hook and ladder truck, one horse-drawn combination hose and chemical wagon, and one supply wagon.

Mill River lane: two chemical engines, one horse-drawn ladder truck, one horse-drawn hose wagon, and seven sleighs.

North Main street: one horse-drawn hose and chemical wagon, one motor aerial hook and ladder truck, one supply wagon, and two sleighs.

Oakland street: one horse-drawn steam fire engine, one horse-drawn combination hose and chemical wagon, one horse-drawn hook and ladder truck, one supply wagon, and one sleigh.

Pine street: one motor combination hose and chemical car, one motor combination hose and chemical car (spare), and one chiefs' car.

Plainfield street: one horse-drawn combination hose and chemical wagon and one horse-drawn supply wagon.

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Walnut street: one motor auxiliary squad car, one chiefs' car, one horse-drawn steam fire engine, one horse-drawn combination hose and chemical wagon, and one horse-drawn supply wagon.

Winchester square: one motor combination hose and chemical car, one horse-drawn steam fire engine, one horse-drawn aerial ladder truck, one horse-drawn supply wagon, and three sleighs.

PERSONNEL OF FIRE DEPARTMENT.

There are at present 166 men in the fire department, divided as follows: one chief engineer, three assistant chief engineers, one superintendent of fire alarm, one clerk, 21 captains, 23 lieutenants, seven engineers, three operators of fire alarm system, one lineman and 85 hose and laddermen, and 20 call men.

DRILL SCHOOL.

This feature of the fire service is continually furnishing demonstrations of its general value to the efficiency of the department. With the completion next year of the new North street station the school will be established there, where a specially constructed tower will greatly aid in the practical side of the work.

MOTOR-DRIVEN APPARATUS.

As the use of motor-driven apparatus is constantly increasing in this department a brief comparison between the expenses incurred by the new type of apparatus and the old horse-drawn apparatus will undoubtedly prove interesting. This comparison may be best demonstrated by comparing the monthly expense of a single piece of horse-drawn apparatus with the monthly expense of the piece of motor apparatus

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which superseded it. With this purpose in view a comparison for a single month of the cost of maintenance for the electric ladder truck stationed at Court street with the cost per month of the three-horse ladder truck it replaced is here presented.

The cost of maintenance for the horse-drawn truck must be made up largely from the cost for the maintenance of the three horses, no account being taken here of the additional cost that would result from the sickness or death of a horse, which would of course necessitate a replacement,—the maintenance cost being made up from the amount of hay, oats, straw, etc., consumed each month by the three horses together with the cost of veterinary services, shoeing, and similar expenses. To this, also, must be added the cost of stable repairs, minor repairs on apparatus, and minor sundry expenses incurred by both horses and apparatus, the entire amount of which for one month may be conservatively stated after a careful estimate to be $58.

Against this the cost of maintenance of the electric truck is to be placed. The heaviest expense for the maintenance of this truck is in the charging with electricity, which amounts to about $3.71 a month. Added to this are the expenses for repairs which, because of the heavy construction of the truck, are very slight, being limited chiefly to broken battery jars. The cost of these repairs is computed to be $0.54 a month, which amount when added to the charging cost of $3.71 brings the total amount of maintenance cost per month to $4.25. Subtracting this amount from the $58 necessary to maintain the horse-drawn truck leaves a balance of $53.75 per month which is saved by the use of the new motor apparatus.

CHIEF ENGINEER'S REPORT.

In regard to the general condition and standing of the department we would call attention to the complete and exhaustive report of the chief engineer where all matters of

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interest or need have been thoroughly considered. Particularly in this regard, however, we would refer to the recommendation therein contained that the permanent force of men in the department be increased by eight men while the call force is decreased by five men. We wish to call attention to the fact that of the eight men asked for but five will be definitely added to the fire department proper as it will be necessary to use three in the service of the fire alarm system.

It is the opinion of the Board, however, that the city has now reached a size sufficient to demand the complete abolition of the call force in the city proper, although call men might still be maintained with good results in Indian Orchard. Consequently the Board would suggest that the number of new permanent men requested by the chief engineer be raised from eight to eleven, thus making the force in the city proper a permanent force and abolishing entirely the fourteen call men now in service here.

FIRE ALARM TELEGRAPH.

During the past year the new fire alarm system has been installed on the top floor of the headquarters building, where it is now in service. This system we regard as one of the finest in the country. We call attention to the accompanying report of the Superintendent of Fire Alarm and advise that his suggestions be carefully considered.

CONCLUSION.

We extend to His Honor, the Mayor, and Members of the City Council our thanks and appreciation for the hearty co-operation given us and for the many courtesies we have received at their hands; and also to Chief William H. Daggett for the efficient manner in which the work of the department

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has been carried on and to the Officers and Members of the department for the loyal support we have received at their hands.

EDWARD A. McCLINTOCK,
CHAS. F. BROWN,
O. A. LaRIVIERE,
JOHN A. DENISON,
FRANK H. WESSON,

Board of Commissioners of the Fire Department.

Board of Aldermen, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

Common Council, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

Mayor's Office, Springfield, Mass., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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REPORT OF

THE CHIEF ENGINEER.

SPRINGFIELD, MASS., December 10, 1911.

To the Honorable Board of Commissioners of the Fire Department.

GENTLEMEN:—In compliance with the ordinance governing the fire department I have the honor to submit to you my fourth annual report.

The department has responded to seven hundred twenty-nine (729) alarms of fire; two hundred forty (240) of which were bell alarms, one hundred seventeen (117) still alarms, three hundred fifty-seven (357) telephone alarms, and fifteen (15) thermostat alarms.

In presenting the following figures it will be well to say that seven fire losses have not yet been adjusted and their figures have been estimated for this report, but their real figures will vary little from the estimates here presented. The loss on property amounted to $399,353.99. The value of property on which a loss was sustained amounted to $4,228,016.68. The insurance on property amounted to $3,558,237.94. The insurance loss was $352,174.62. The uninsured loss was $47,179.37.

Forty-nine hundred sixteen (4,916) examinations of buildings have been made during the year.

The appropriations and receipts amounted to $248,666.12; expenditures $247,352.79, leaving a balance unexpended of $1,307.33.

I would recommend, as I have explained in detail throughout the body of the following report, that the permanent force

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of the department be increased by eight (8) men and the call force decreased by five (5) men; and also the purchase of four motor-driven combination hose and chemical cars and two motor-driven hook and ladder trucks.

MANUAL FORCE.

In regard to the manual force of the department I would call attention to the fact that as the city grows larger the force must naturally increase in order that the demands upon the department may be successfully met. This can be done to a great extent through the gradual enlargement of the permanent force and the elimination of the call men.

The manual force should be increased by eight men as soon as possible, while the call force may be proportionately decreased by five men. This step seems necessary because at the present time we have three ladder companies and one hose company with but five men each. Consequently when any of the men are having days off the companies are left at meal hours with but two men each to answer alarms, a force barely sufficient to man the apparatus and get it to fires and not enough, when the fire is reached, to "ladder" the buildings or to effectively carry out the work in hand.

HOSE WAGONS.

Chestnut, Court, Margaret, Pine, and Winchester square stations are now equipped with modern motor-propelled hose and combination cars, while another is being constructed that will replace the horse-drawn wagon stationed at Bond street.

The wagons at Indian Orchard, Mill, and Oakland street stations are very old, of too light weight for the use they are subjected to, and are really in a condition that may be called dangerous.

The Winchester square and Walnut street horse-drawn

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wagons, while not modern, are in good repair and the Winchester square wagon can now replace one of the wagons at the Indian Orchard, Mill, or Oakland street stations.

The wagons at Armory and North Main street stations are modern horse-drawn wagons and are in first class condition.

The wagons at Bond and Plainfield street stations are not modern, but are serviceable.

The car that was formerly used by Squad A, the first piece of motor apparatus to be purchased by the city, has been exchanged with the Knox Auto Company for a larger and more powerful piece of apparatus, designed to carry more men and appliances for life saving. These appliances consist of a jumping net, scaling ladders, life belts, life gun, ozone generator, stretcher, first aid kit, smoke helmet, extension and roof ladders, and eighteen other different types of fire tools including a tow rope designed for a quick hitch to tow disabled apparatus, either motor or horse drawn. This is a most satisfactory piece of apparatus and it would be desirable if the Squad B car could be of the same pattern.

LADDER TRUCKS.

The department has in service six ladder trucks and for the first time since the ladder company was installed in the Oakland street station we now have a spare ladder truck, and apropos to this it would be well to suggest that in the future the department should never be without a spare piece for each class of apparatus in use. The spare ladder truck has been gained through the purchase of the motor truck for the Court street station and the converting of the old horse-drawn ladder that was stationed in the Pynchon street station into a motor-propelled truck. The latter will be stationed in the North Main street building, thereby giving us a spare truck.

The frame of the Mill street truck should be straightened and strengthened and a place arranged on it for carrying a jumping

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net. Until the present time this truck could not be spared for the necessary repairs, the department not having any spare apparatus to take its place while repairs were being made.

The horse-drawn truck which has been stationed in the North Main street building was purchased in 1875, about 37 years ago, and, excepting the ladders, is in poor condition. This is our present spare truck.

The truck stationed in the Oakland street building is the first ladder truck to be owned by the city, having been purchased in 1872, about 40 years ago. The ladders on the truck are in good condition, but the truck, like the one in the North Main street station, is far from modern and is not constructed for carrying the tools necessary for the proper equipment of a city truck.

The Winchester square truck was purchased at an auction sale 12 years ago for $400, after having been stored in a stable in Chicago for eight years. This is an aerial truck, but a "man-killer" and slow raising. This piece of apparatus covers a greater territory than any other piece in the department and should be replaced with a motor-propelled truck.

The truck stationed at Indian Orchard is a small truck, but is in good repair and suitable for the work it has to do.

The new electric truck stationed in the Court street building has answered all alarms of fire from boxes to which it has been assigned without showing any disposition to balk and there seems no reason why it will not continue to do so.

The three-horse aerial truck with the battery tractor attached is in fine repair and will be a great addition to the ladder service of the department.

As we now have two motor-driven trucks in service in the department and as the Pine street station has been erected with housing accommodations for another, which must eventually be placed there, it is advisable that the department's spare ladder truck be motor-driven. This is so because of the

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fact that a motor-driven truck can be temporarily housed in any station requiring its presence, whether the station be arranged for motor or horse-drawn apparatus, while a horse-drawn truck cannot be housed in a station built expressly for motor apparatus.

The department has always been greatly handicapped by the lack of sufficient men to properly man its apparatus and by the lack of spare apparatus. It is to be hoped, therefore, that the department, as it stands to-day, may be placed on a thoroughly efficient footing, both in regard to men and spare apparatus, before the time arrives when the department must expand and establish new stations for the protection of the growing city. The desire of this department is to reach a condition where what it has will be of the best in every way, and when that stage is reached future expansion will be an item devoid of many of the difficulties which surround it to-day.

STEAM FIRE ENGINES.

The matter of steam fire engines is not of vital importance at the present time, although it is of sufficient importance to demand somewhat more than a casual mention. Since the installation of the new water system the water pressure in the center of the city has been of such strength as to largely do away with the necessity of using steam fire engines on first alarms in the down-town districts. As a result of this condition only the engines in the hill sections where the water pressure is not as great are in constant service. These engines are called down-town in the event of a large fire where the use of many and long lines of hose are required.

Two engines that were stationed at Bond and Pynchon streets before the installation of the Little River water system are now held in reserve, one at Margaret and one at Bond street, and if occasion requires will be drawn to fires by some of the several motor-driven pieces in the department.

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The boilers in the engines stationed at Oakland and Mill streets have very nearly outlived their usefulness through long service. The boilers have been in use for 14 and 15 years respectively and have now reached a stage where at any time the state boiler inspector is liable to condemn them and to order that new boilers be installed in the engines.

Before taking such a step as the changing of boilers in old engines, however, it would pay to consider the matter very carefully in view of the new developments in the fire engine field. There are at present several different makes of motor-driven fire engines in the market. None of them as yet have developed the efficiency of the steam fire engine, but with so many capable mechanics at work on the perfection of motor fire engines it seems highly probable that before long one will be evolved that will be suitable.

A comparison of the expense of remodeling the old engines and the cost of their maintenance with the cost of new motor-driven engines will readily show the wisdom of consideration before going to the expense of installing new boilers in old engines. The cost of overhauling an old engine and supplying it with a new boiler would be approximately $2,000. Add to this amount the extra expense of a driver for the engine and a stoker, which means about $2,200 a year. Both these men could be eliminated with the installation of motor engines, as the engineer of a motor engine would serve in the capacity of engineer and also of driver. Then the cost of maintenance of horses, an item of about $500 a year, would be eliminated.

Thus it may be seen that in the first year an amount of about $4,700 would be saved by the purchase of a motor engine, which amount when added to the saving of the next two years, about $2,700 annually, would in three years' time be sufficient to pay for the new engine. Then, too, in case the two old boilers should be condemned the two spare engines can easily be substituted for a time sufficient to tide the

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matter over until the motor fire engines shall have been perfected.

It seems, therefore, that to spend money in repairing the present horse-drawn fire engines would prove but a false economy and little should be done to add to the regular expense of the engines until the city is ready to purchase one that is motor-driven.

CHEMICAL ENGINES.

A year ago the department had in service two straight chemical engines. When this type of apparatus was purchased, some 17 years ago, the chemical tank was considered a necessity and it proved its value by keeping the fire loss small, particularly in the case of small fires.

The combination hose and chemical wagon was not then in use by fire departments, but it has since been developed by reason that the cost of maintenance is the same, while the efficiency of the combination wagon is double that of its predecessor, the straight chemical engine.

The two straight chemical engines owned by the department, having been replaced by combination wagons, are now stored in the Mill River lane building where they are awaiting a purchaser.

SUPPLY WAGONS.

Two years ago it was thought to be imperative that new supply or exercise wagons be soon purchased for the Armory, Indian Orchard, and Oakland street stations, but by constantly making small repairs and by extremely careful usage of the wagons all three were kept in service until the horse apparatus at headquarters and Pine street was superseded by the motor apparatus. Thus the department was able to discard the superannuated wagons which had been in service and replace them with the three that had formerly been used at head-

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quarters and Pine street. This transaction was another example of the factthat the purchase of motor apparatus was not entirely a matter of outgo as this single exchange worked for the city a saving of at least eight hundred dollars.

HOSE.

Early in the year the changing of the clutch coupling to the national standard coupling was made, the work being performed by the men in the department, under the supervision of Assistant Chief Graves. The work of changing was accomplished so smoothly and rapidly that no delay whatever resulted in getting water on a fire while the work was in progress. The work of the water department in changing the couplings of the hydrants at the same time in co-operation with the members of the fire department deserves particular mention for its rapid efficiency.

The conversion of Chemicals A and B into hose wagons and the necessity of supplying each with a full quota of hose, together with what hose has been worn out and discarded, has made the department very short of hose. To make up the shortage and to have, also, a sufficient amount to allow for the giving of each company a complete change when necessary, five thousand feet of hose should be added to the department's supply. But as the needs of the department have been numerous of late and as it is still in need of many important items for complete equipment, it seems possible that, barring accidents, such as the burning or unavoidable injury or destruction of hose, three thousand feet may suffice to get the department through the coming year.

BUILDINGS.

With the exception of the Chestnut street and Bond street stations all buildings owned by the department are in good

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repair, although the buildings housing horses will need the usual stable repairs.

The interior of the Armory street station may also need varnishing.

The Bond street station will be abandoned some time during the summer and will consequently need no attention.

The bath room of the Chestnut street station is in very bad condition and changes for better bathing facilities should be made as soon as possible as this station houses sixteen men.

In stations constructed years ago sleeping accommodations for companies composed wholly of permanent men were not considered. Consequently, as the call force has decreased and the permanent force increased, sleeping quarters in these stations have become decidedly cramped.

For several years the Board of Commissioners have considered enlarging several of the stations by adding an extra floor to each, an expensive proceeding at best. The introduction of motor apparatus will remedy this trouble by utilizing for sleeping rooms that space now being used for stable room and storage of forage. Thus the expense of providing extra sleeping rooms will be greatly diminished and the rooms themselves should prove satisfactory when the necessary alterations have been made.

HORSES.

One year ago the department had in service 55 horses. Early in the year two more were purchased and, during the year, 12 have been sold. At the present time 45 horses are owned by the department, all but two of which appear to be in good condition.

DRILL SCHOOL.

This branch of the service has given excellent results as, through it, all members of the department are trained alike and no misunderstanding can arise when any man is called

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upon for quick action in performing any work assigned to him. This has been particularly noticeable in the handling of ladders, as this work has been, in years passed, considered the weak point of the fire service. Each man being now skilled in ladder raising any member of the department can be called upon in an emergency to fill any gap in a competent manner.

Accompanying this report will be found a statement of receipts and expenditures, a detailed statement of fires and alarms which have occurred from December 1, 1910, to December 1, 1911, and the cause thereof, with the names of the owners and occupants, the loss and insurance, the number of alarms to which each company responded, the location of fire alarm boxes, and an inventory of land, buildings, and equipment of the department.

Respectfully,

W. H. DAGGETT,

Chief Engineer.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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RECEIPTS.

Appropriation,	$243,500.00	
Transfer,	1,000.00	
Sale of horses,	1,830.00	
Sale of hose and couplings,	88.20	
Sale of junk,	339.65	
Sale of manure,	255.00	
Sale of Pine street buildings,	1,282.55	
Sale of wagons,	80.00	
Rebate (express paid),	.72	
Rent, Mill River lane building,	54.00	
Street Railway Co., damage to apparatus,	230.00	
		$248,660.12

EXPENDITURES.

Apparatus,		$33,047.74	
Buildings,		4,362.44	
Clothing,		404.15	
Fire alarm,		9,060.96	
Fire tools,		1,323.08	
Forage,		7,080.15	
Forest fires,		46.20	
Fuel,		4,270.52	
Furniture and bedding,		2,185.27	
Harness,		87.93	
Highway and grounds,		339.02	
Horses, New,	$600.00		
Shoeing,	2,064.35		
Veterinary,	515.50		
		3,179.85	
Hose,		2,367.65	
Laundry,		742.40	
Light,		1,042.78	
Miscellaneous,		299.34	
Pay roll,		174,340.91	
Supplies,		2,648.66	
Telephone,		523.74	
			247,352.79
Balance unexpended,			$1,307.33

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INVENTORY OF THE FIRE DEPARTMENT.

DECEMBER 1, 1911.

	Land.	Buildings.	Equipment.	Total.
Armory street,	$1,200.00	$16,000.00	$7,236.00	$24,436.00
Bond street,	2,000.00	5,000.00	8,560.00	15,560.00
Boston road,		200.00	300.00	500.00
Chestnut street,	10,000.00	14,500.00	14,286.00	38,786.00
Court street,	35,000.00	101,500.00	45,577.00	182,077.00
Hooker street,	3,900.00	20,400.00	8,217.00	32,517.00
Indian Orchard,	1,200.00	16,000.00	8,060.00	25,260.00
Margaret street,	2,000.00	25,500.00	11,850.00	39,350.00
Mill street,	2,000.00	16,500.00	11,512.00	30,012.00
Mill River lane,	300.00	2,000.00	1,300.00	3,600.00
North street,	4,000.00			4,000.00
Oakland street,	2,000.00	11,000.00	10,217.00	23,217.00
Pine street,	2,500.00	27,000.00	9,216.00	38,716.00
Plainfield street,	1,200.00	10,500.00	3,017.00	14,717.00
Walnut street,	3,500.00	17,500.00	14,487.00	35,487.00
Winchester Square,	7,000.00	18,000.00	17,317.00	42,317.00
Fire alarm service,			108,000.00	108,000.00
	$77,800.00	$301,600.00	$279,152.00	$658,552.00

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DETAILED STATEMENT OF FIRES FOR THE YEAR ENDING NOVEMBER 30, 1911.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
1910												
Dec. 1	8:12 p.m.	981	False									False alarm.
" 2	1:13 p.m.	Tel.	109 Ferry St	Frame	L. Lasker			$40.00	$3,000			Defective chimney.
" 3	5:19 p.m.	Tel.	136 Chestnut St.	Brick	H'pd'n H't'l Co.	H'pd'n H't'l Co.						Gasoline torch.
" 3	8:39 p.m.	37	Ft. of Marg't St.	Coal pile	S. S. R. R. Co.							Spontaneous comb'st'n.
" 5	4:29 p.m.	Tel.	547 Main St	Frame			Hotel					Grease over range.
" 5	4:44 p.m.	still	Pynchon St	Frame	Forbes & Wallace	Forbes & Wallace	Factory					Insulation.
" 6	1:15 p.m.	Tel.	36 Arch St	Frame	D. F. Blanchard.		Barn					Thawing water pipe.
" 7	12:32 p.m.	Tel.	80 Magn'lia Ter.	Frame	E. Stearns	S. E. Buxton	Dwelling	18.05	6,000	$8.50	$2,500	Match in wastebasket.
" 7	1:10 p.m.	465	91 Abbe Ave	Frame	C. Johnson	J. A. Sullivan	Dwelling	5.00	2,000	None		Chimney fire.
" 7	4:58 p.m.	82	James St	Automobile								Gasoline.
" 7	5:34 p.m.	still	Walnut St	Trolley car								Trolley car.
" 7	6:26 p.m.	5	807 Main St	Brick	M.H.&C.E. Abbe	Phœnix L'ch Co.	Lunch room	67.00	102,300	102.00	5,000	Careless with matches.
" 8	11:33 a.m.	still	485 State St	Frame	M. J. Crowley	M. J. Crowley	Hotel	10.00	4,000			Leaky gas pipe.
" 9	9:30 a.m.	still	Plainfield St	Grass, etc.	B. & M. R. R.							Grass fire.
" 9	5:12 p.m.	Tel.	Armory St	Frame	H'pd'n Paint Co.	H'pd'n Paint Co.	Factory	200.00	None			Combustion.
" 9	5:52 p.m.	472	61 Greenwich St.	Frame	Mary McKenna.	Mary McKenna.	Dwelling	15.75	3,700	40.00	800	Child'n play'g with fire.
" 10	2:16 p.m.	41	90 Sharon St	Frame	G. Greenberg		Dwelling					Thawing water pipe.
" 11	8:40 a.m.	Tel.	Summer St	Coal pock't	S. R. Carlisle	S. R. Carliale						Spontaneous comb'st'n.
" 11	9:48 a.m.	Tel.	110 Clantoy St.	Frame	J. B. Brown							Chimney fire.
" 11	4:08 p.m.	Tel.	Birnie Ave	Rubbish								Rubbish.
						W. F. Potter				10.00	None	
" 11	4:38 p.m.	8	136 Dwight St	Brick	Mary D. Goett'g.	Mrs. Reg. Malo	Dw's & stores	747.50	12,372	70.00	500	Unknown.
						Akin & Co.				25.00	650	
" 11	8:05 p.m.	Tel.	23 Carew St	Frame	H. Steinberg	H. Steinberg	Dwelling	15.00	6,000	68.00	500	Children and matches.
" 12	10:30 a.m.	Aut.	Forbes & Wallace									Frozen sprinkler pipe.
" 12	2:05 p.m.	41	169 Main St	Brick	I. Richmond							Thawing water pipe.
						E. Cohen				400.00	1,400	
" 13	12:10 a.m.	462	106 Washburn St.	Frame	E. Marshak	J. Cooley	Barn	400.00	1,200	177.00	250	Supposed incendiary.
						J. Wilson				160.00	250	
" 13	12:10 a.m.	462	102 Washburn St.	Frame	M. Cohen		Dw'g & barn	125.00	3,000			Exposure loss.
" 13	9:45 a.m.	7	281 Sharon St.	Frame	Jennie Faiman.		Dwelling	125.00	2,100			Thawing water pipe.
" 14	9:50 a.m.	Tel.	Indian Orchard.									Chimney fire.
" 14	11:01 a.m.	Tel.	Moore Ave	Grass								Grass fire.
" 14	5:07 p.m.	Aut.	Birnie Ave		U. S. S. B. Co.							Defective system.
" 16	10:30 a.m.	631	33 Fl'ntine Gar.	Frame	Mrs.M.T.De G'ft	Wm. B. Lincoln	Dwelling	1,020.00	4,000	403.00	800	Hot ashes.
" 16	10:55 a.m.	91	95 Andrew St	Frame	M. A. Maynard.							Thawing water pipe.
" 16	7:06 p.m.	Tel.	546 Main St	Awning		T. E. Hanifin	Bakery			12.00	750	Careless smoking.
" 17	8:27 a.m.	Tel.	22 Morgan St									False alarm.
" 17	9:49 a.m.	Tel.	47 Rutl'dge Ave.	Frame								Back draught.
						Un'n H.&C. Co.	Hat factory	29,847.00	112,300	1,450.00	2,000	
						H. B. Buxton				2,930.60	5,500	
" 18	1:06 a.m.	4	33 Lyman St	Brick	Sp'field Power	V. Sp. G'ds Co.				22,663.85	144,000	Unknown.
					Associates	C.A.Nich'ls Co.				5,273.17	6,000	
						W.S.&D. B'xt'n				2,226.00	21,500	

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings. Loss on	Buildings. Ins. on	Contents. Loss on	Contents. Ins. on	Cause and Circumstances of Fire.
Dec. 18	1:06 a.m.	4	33 Lyman St....	Brick.....	Sp'field Power Associates..	E. O. Smith Co.				$2,162.18	$24,000	Unknown.
						W.M.Y'g & Co.				8,000.00	2,500	
						B'c'n & D'n'v'n				750.00	5,500	
						T. J. Morris...				541.44	1,000	
						B.&S.D.Ex.Co.				1,387.91	2,500	
						E.C.&G.C. G'er				2,200.00	2,000	
						L. S. Brown Co.				1,400.00	1,400	
						O. H. Dick'son.				290.75	3,000	
						H. C. C'dy Co..				1,600.00	1,600	
						Ant'p'e File Co.				1,500.00	1,500	
						C. E. Stryker..				125.00	125	
						R. F. Wells....				139.00	400	
						W'k'gman's C'b				700.00	700	
" 18	3:07 p.m.	Tel.	Ft. of Cypress St..	Rubbish...				None		None		Rubbish.
" 21	10:39 a.m.	Tel.	Davenport St....	Frame.....	E.'Mansfield....	E. Mansfield....	Dwelling....			Slight		Cloth near stove.
" 21	5:42 p.m.	795	103 Grover St....	Frame.....	F. Poltenson....	J. Farrar.....	Dwelling....	$25.00	$2,250	5.00	None	Snap match.
" 22	4:35 p.m.	27	Indian Orchard...	Frame.....			Dwelling....					Chimney fire.
" 22	11:36 p.m.	41	Ft. of Emery St..	Brick.....	B. & M. R. R...	B. & M. R. R...				Slight		Careless with fire.
" 23	12:30 p.m.	Tel.	198 Florida St...	Frame.....						None		Rubbish in cellar.
" 23	2:04 p.m.	421	81½ Main St....	Brick.....	W. E. Parsons...	Chas. Kaplan..				600.00	1,200	Unknown.
						Mrs.J.M.M'sh'l	Dwelling....	885.25	11,000	10.00	500	
						Mrs. Cobb....				12.00	None	
" 23	7:25 p.m.	Tel.	42 Ridgewood Pl.	Frame.....								Chimney fire.
" 23	8:08 p.m.	493	Fisk Ave.....	Brick.....	Ham. Cor.W. Co.	Ham. Cor.W. Co.	Factory.....	Slight				Heat from dry kiln.
" 24	5:18 p.m.	78	99-101 G'nw'd St.	Frame.....	S. Bresky.....	H. Goldin.....	Dwelling....	290.00	6,000	50.00	500	Unknown.
						A. Burston.....				30.00	500	
" 25	12:25 a.m.	still	Locust St.....									Trolley car.
" 25	2:00 a.m.	231	455 Main St.....	Stone.....	H. L. Bowles....	W. T. Bugbee...		67.00	19,500	None		Hot ashes.
" 25	10:16 a.m.	471	152 N. Main St..	Automobile						None		Gasoline.
" 25	11:31 a.m.	Tel.	26 Morgan St....	Frame.....	H. Squirsky.....	T. Costello.....	Dwelling....	5.00	None	None		Chimney fire.
" 25	3:08 p.m.	Tel.	38 Westford Ave.	Frame.....	C. S. Potter.....	C. S. Potter.....	Dwelling....	Slight		None		Careless with match.
" 26	8:59 a.m.	28	Rear 62 V'non St.	Brick.....				None		None		Rubbish chute.
" 26	3:25 p.m.	78	North St.....	Frame.....	B. Radding.....		Shanty.....	25.00	None			Heat from stove.
" 28	9:42 p.m.	Ther.	Hillman St.....	False.....								Defective thermostat.
" 29	11:26 a.m.	Tel.	Wellington St....	False.....								False alarm.
" 29	11:38 a.m.	Tel.	Main St.....	False.....								False alarm.
" 29	12:36 p.m.	421	36 Essex St.....	Brick.....	R. Meyers.....	A. Colby.....	Print'g shop..	350.00	4,100	275.00	None	Unknown.
" 29	8:55 p.m.	43	63 Church St....	Frame.....	Eliz. Guyer.....	Eliz. Guyer.....	Dwelling....	218.20	3,200	421.33	1,500	Christmas tree.
" 30	3:55 p.m.	78	133 Franklin St..	Frame.....				None		None		Chimney fire.
" 30	6:25 p.m.	Tel.	68 Water St.....	Frame.....				None		None		Chimney fire.
" 30	6:35 p.m.	Tel.	Cl'de & Pl'f'ld St.	Frame.....				None		None		Chimney fire.
" 30	6:56 p.m.	still	46 H'nt'gton St...	Frame.....				None		None		Defective boiler.
" 30	7:16 p.m.	672						None		None		False alarm.
" 31	6:15 p.m.	573	75 Bay St.....	Frame.....	F. S. Allen.....	F. S. Allen.....	Auto shed...	200.00	200	500.00	500	Fumes from radiator.

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Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings. Loss on	Buildings. Ins. on	Contents. Loss on	Contents. Ins. on	Cause and Circumstances of Fire.
1911												
Jan. 1	3:55 p.m.	273										False alarm.
" 2	12:19 p.m.	still	Walnut St.....									Trolley car.
" 2	7:10 p.m.	5	171 W'ster, I. O..	Frame....	J. Ratelle.....	H. Poland.....	Dwelling....	$20.00	$2,000	None		Accident with lamp.
						J.W.R.&S.Co...				$1,028.97	$7,500	
						Ent. Pl'g Co....				1,340.00	2,500	
" 3	1:37 a.m.	8	47-49 Taylor St..	Brick.....	J.W.R.&Sons Co.	A. E. Emerson.	Factory.....	3,012.00	17,500	710.00	4,600	Unknown.
						C. A. Stone....				5.00	400	
						J. J. Whalen...				520.90	1,500	
" 3	1:54 a.m.	13	Elliot St.....	Frame....	City.....	School Dept.....	School Dept..	10.00	None			Unknown.
" 4	11:37 a.m.	Tel.	250 Liberty St...		J. Greenberg....							Rubbish.
" 4	7:15 p.m.	still	Locust St.....									Trolley car.
" 4	11:00 p.m.	Tel.	Cherryvale Ave..									False alarm.
" 6	3:56 p.m.	Tel.	124 Bridge St....	Brick.....								Smoke from chimney.
" 8	5:50 p.m.	Tel.	490 Main St.....	Brick.....								Sparks from chimney.
" 9	9:19 a.m.	93	44 Maynard Ave.	Frame....	J. J. Sullivan....	J. J. Sullivan....	Dwelling....			Slight		Unknown.
" 9	11:35 a.m.	still	Indian Orchard..									Dumping grounds.
" 9	12:28 p.m.	36	Indian Orchard..	Frame....								Chemicals.
" 10	8:29 a.m.	Tel.	14 Vernon St....	Brick.....	D. O. Gilmore...	E. C. Barr.....	Hotel.....	91.73	5,500			Grease in vent pipe.
						J. Terney.....				150.00	200	
" 11	12:58 a.m.	41	34 Sharon St.....	Frame....	Z. Hare.....	F. Herwitz....	Barn.....	820.28	1,000	200.00	None	Incendiary.
						J. Weinberg...				185.00	300	
" 11	10:40 p.m.	Tel.	South St.....									Grass fire.
" 12	8:00 a.m.	Tel.	175 Maple St....	Brick.....								Electric wires.
" 12	9:25 a.m.	7	207 Sharon St....	Frame....	S. Askinass.....	Deminsky.....	Dwelling....	100.00	4,000	Slight		Clothing near stove.
" 13	3:05 p.m.	78	329 Chestnut St..	Brick.....	Kesser Isr'l Con..	Kesser Isr'l Con..	Church.....	698.00	10,000			Heat from furnace.
" 13	4:48 p.m.	Tel.	Forest Park.....	Frame....	City.....	City.....	Barn.....	2,500.00	None	1,000.00	None	Unknown.
" 13	5:45 p.m.	Tel.	128 Oakland St...									False alarm.
						Emil Wunsch..				3,516.97	7,000	
" 15	3:47 p.m.	23	19 Sanford St....	Brick.....	Ellen T. King...	CentralL.Union	Restaurant...	5,275.00	16,000	200.00	1,500	Unknown.
" 16	5:59 p.m.	Tel.	Taylor St.....	Gasoline..								Gasoline.
" 16	6:52 p.m.	Tel.	Cornell St.....									Grass fire.
" 17	2:30 p.m.	971	99 Eastern Ave...	Frame....	E. E. Towne....	T. Tillman.....	Store.....	150.00	2,000	475.00	1,500	Unknown.
" 17	9:59 p.m.	Tel.	South St.....									Grass fire.
" 18	11:00 a.m.	Tel.	1154 W'rth't'n St.									Chimney fire.
" 18	9:30 p.m.	Tel.	295 Main St.....									Broken steam pipe.
" 19	8:07 a.m.	still	49 Hancock St...	Frame....	Mrs.H.M. Col'n.			Slight				Overheated stovepipe.
" 19	1:55 p.m.	352	615 Main St.....	Brick.....	J.C.&P.L. Morse.	M. Kravitz.....	Store.....	160.00	8,000	250.00	800	Careless with gasoline.
" 19	3:13 p.m.	still	Liberty & Carew.									Grass fire.
" 20	1:24 p.m.	Tel.	Fed'l & S'm'r Sts.									Grass fire.
" 20	6:08 p.m.	41	145 Ferry St.....	Brick.....				Slight				Broken water front.
" 21	2:05 a.m.	Tel.	183 Main St.....									Careless smoking.
" 22	2:49 a.m.	24	406 Main St.....	Brick.....	H. G. Waters....	J. P. McCorm'ck	Hotel.....	245.00	50,000	70.00	15,000	Unknown.
" 22	11:42 p.m.	7	Liberty St.....									Rubbish.
" 25	11:35 a.m.	still	299 N. Main St..	Frame....	M. & D. Liss....	Mrs. Davis.....	Dwelling....	Slight		15.00	None	Careless with match.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Jan. 25	3:52 p.m.	41	125 Ferry St.....	Frame....	W. Dashafski....	Z. Leventhal....	Dwelling....	$555.00	$4,300	$112.50	$400	Unknown.
" 25	3:52 p.m.	41	131-133 Ferry St.	Frame....		D. Schaffer.....				192.00	800	
" 25	3:52 p.m.	41	131-133 Ferry St.	Frame....	B. Tabackman...			119.44	2,000			
" 25	6:30 p.m.	still	94 Bond St.....	Frame....	H. Goodseit.....	U. Feiman.....	Dwelling....			10.00	None	Careless with match.
" 25	8:40 p.m.	still	Abbe Ave.....									Grass fire.
" 25	10:09 p.m.	Tel.	Wilbraham Rd...									Drying plaster.
" 26	1:20 p.m.	Tel.	Springfield St....									Grass fire.
" 26	8:04 p.m.	462	128 Washburn St.	Frame....	J. Abramofsky...	J. Abramofsky...		100.00	500			Unknown.
" 27	12:12 p.m.	27	260 Main St., I. O.	Frame....	A. M. Gendreal..							Children and matches.
" 28	6:50 p.m.	Tel.	59 Auburn St....	Frame....								Chimney fire.
" 28	7:30 p.m.	Tel.	Out of Town.....									Chicopee.
" 29	8:45 a.m.	still	60 Vernon St....									Unusual smoke.
" 29	10:05 a.m.	still	205 Chestnut St..	Brick.....	J. H. Williams...	N. A. Valiquette.	Shop.....			36.00	600	Careless with match.
" 30	1:52 a.m.	84	712 Main St.....	Brick.....	A. M. Merryfield.	O. M. Brown..	Store.....	715.00	40,000	25.00	1,500	Unknown.
						C. H. Comette.				100.00	500	
						G. D. Bl'chard.				24.00	700	
						Mrs.M.L. All'n.				50.00	500	
" 30	12:25 p.m.	Tel.	18 Davenport St.	Frame....	E.&M. Mansfield	E.&M. Mansfield		640.00	1,500	385.00	500	Unknown.
" 30	3:55 p.m.	Tel.	Indian Orchard...									Chimney fire.
" 30	6:20 p.m.	6	Indian Orchard...									Chimney fire.
" 31	9:40 a.m.	795	36 Clantoy St....	Frame....	Wm. White.....	Wm. White.....	Dwelling....	25.00	3,000	75.00	None	Unknown.
" 31	5:25 p.m.	Tel.	West St.....									Grass fire.
" 31	6:15 p.m.	Ther.	Forbes & Wallace									Frozen sprinkler.
" 31	6:57 p.m.	75	23 Hebron St....	Frame....	P. H. Halloran..	P. H. Halloran...	Dwelling....	18.75	3,500	50.00	None	Unknown.
Feb. 1	5:20 p.m.	still	Indian Orchard...	Brush.....								Brush fire.
" 2	5:00 p.m.	Tel.	Indian Orchard...									Chimney fire.
" 2	7:58 p.m.	421	43 Main St.....	Brick.....	Mary D. Goett'g.	F. E. Paddock...	Dwelling....	114.00	48,000	100.00	None	Unknown.
" 2	10:02 p.m.	472	164 Birnie Ave...	Brick.....	Flem'g F'dry Co.	Perf'n Grate Co..	Foundry.....	1,118.00	2,000	405.56	2,300	Unknown.
" 3	7:32 a.m.	462	103 Lowell St....	Frame....	A. Tuber.....	M. F. Griffin....	Dwelling....	42.00	3,000	None		Defective chimney.
" 3	12:01 p.m.	413	207 Main St.....	Brick.....	H. E. Marsh....	J. A. Whitford.	Store.....	1,632.60	202,500	2,569.34	3,375	Unknown.
						J. D. K'gsberg.				50.00	3,000	
						Dowd & Sauter				42.00	1,000	
						Lib'ty Clo. Co.				125.00	6,000	
" 4	1:53 a.m.	7	269 Sharon St....	Frame....	A. Faiman.....	H. A. Goodman..	Barn.....	150.00	2,100	450.00	500	Unknown.
" 4	11:37 a.m.	Tel.	27 Sheldon St....									Overheated boiler.
" 5	8:46 a.m.	Tel.	498 Liberty St...	Frame....	S. Rickless.....	S. Rickless.....		145.00	6,000			Overheated furnace.
" 5	11:25 a.m.	623	284 Dickinson St.	Frame....	J. J. Whitehouse.	A. L. Dean.....	Dwelling....	Slight		50.00	None	Unknown.
" 5	8:46 p.m.	69	109 Allen St.....	Frame....	B. Powell.....	B. Powell.....	Dwelling....	462.00	1,500	250.00	500	Oil lamp.
" 6	12:26 a.m.	still	Liberty St.....									Dumping grounds.
" 6	12:31 a.m.	26										False alarm.
" 6	9:35 a.m.	462	102 Washburn St.	Frame....	M. Cohen.....	M. Cohen.....	Dwelling....	130.00	2,500	100.00	500	Unknown.
" 8	1:38 a.m.	78	97 Tenth St.....	Brick.....	S. Black.....	B. Black.....	Grocery.....	250.00	1,200	150.00	800	Unknown.
" 8	10:07 a.m.	Tel.	155 Ferry St.....	Frame....	S. Barnett.....	J. Cohen.....	Dwelling....	33.60	4,050	100.00	500	Unknown.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Feb. 8	9:30 p.m.	Ther.	Harrison Ave....									False alarm.
" 8	10:48 p.m.	21	State St.....	N'dl'ss al'm								Broken water pipe.
" 9	9:30 a.m.	Tel.	74 Park St.....	Brick.....	S. Moriarty.....	T. Anderson.....	Dwelling....	$78.50	$1,500	$10.00	None	Unknown.
" 9	5:42 p.m.	Tel.	216 Main St.....	N'dl'ss al'm								Smoke from furnace.
" 10	6:03 p.m.	still	Walnut St.....									Trolley car.
" 10	8:44 p.m.	Tel.	Birnie Ave.....									Freight car.
" 14	6:15 p.m.	36	Indian Orchard...									False alarm.
" 15	7:58 a.m.	still	204 Chestnut St..	N'dl'ss al'm								Escaping steam.
" 15	10:10 a.m.	28	103 Water St....									Meat on stove.
" 15	12:45 p.m.	971	92 Eastern Ave..	Frame....	F. Dobbs.....	A. Carlson.....	Store.....	242.00	1,000	400.00	None	Careless with gasoline.
" 16	8:47 a.m.	Tel.	471 W'rth'gt'n St.									Careless with gasoline.
" 17	9:05 p.m.	still	Indian Orchard...									Trolley car.
" 18	12:12 a.m.	9	Lyman & Ch'stn't	Brick.....	F.P.&A.C. D'hue	N. Zeo.....	Store.....	9,767.00	36,000	3,812.00	$6,000	Unknown.
						M., P. & Wheat				19,521.72	22,500	
						O'Br'n & R'g'n				301.00	1,700	
						C. Blume.....				118.75	500	
						C. F. Seravo...				641.89	1,600	
						N. St. John....				75.00	500	
						N. J. Keough..				129.38	500	
						A. I. Mar'v'ski.				55.00	300	
						Y. M. H. All'ce				325.00	500	
						Polish Club....				80.00	None	
						Col. Creamery.				144.00	3,500	
" 18			167 Chestnut St..	Brick.....	W. L. Sadler....	W. B. Noble....	Store.....	67.92	23,000	33.75	4,000	Exposure loss.
" 19	10:09 p.m.	Tel.	Liberty St.....									Dumping grounds.
" 20	3:06 a.m.	Tel.	568 Main St.....	Brick.....	T. M. Walker Est	H. S. Huettner..	Bakery.....			46.70	4,000	Fat spilled on stove.
" 20	8:20 p.m.	Tel.	Liberty St.....									Dumping grounds.
" 21	2:36 p.m.	Tel.	29 Cross St.....	Frame....	N. Elmer.....	L. G. Green.....	Dwelling....			25.00	None	Children and matches.
" 21	10:45 p.m.	462	81-83 Orchard St.	Frame....	R.&L. Luterman.	L. Yarock.....	Dwelling....	198.00	3,000	126.00	500	Unknown.
" 22	6:44 p.m.	Tel.	33 Parkwood St..	Frame....	W. E. Clark.....	W. E. Clark.....	Dwelling....	45.00	3,000	40.00	1,500	Careless with candle.
" 23	5:45 a.m.	still	202-206 High St..	Brick.....	L. C. Scheuing...							Heat from furnace.
" 23	11:23 a.m.	512	365 Bay St.....	Frame....	H. Selwitz.....	H. Selwitz.....	Store.....	267.00	6,000	125.00	200	Unknown.
" 23	3:47 p.m.	Tel.	23 Central St....	Brick.....	Roberge.....	J. St. John....	Dwelling....	None		138.00	200	Children and match's.
						J. J. Lucas....				60.00	500	
" 23	7:07 p.m.	43	398 Main St., I. O.									Defective chimney.
" 24	6:16 p.m.	Ther.	Harrison Ave....									Heat from gas lamp.
" 25	4:15 p.m.	still	Winchester Sq...									Trolley car.
" 25	4:48 p.m.	41	Ft. of Cypress St.	Brick.....	B. & M. R. R...	B. & M. R. R...	Machine shop	302.00	8,700	None		Unknown.
" 26	1:38 p.m.	still	Liberty St.....									Dumping grounds.
" 26	9:18 p.m.	352	14 Wilcox St.....	Brick.....	A. O. Standish...	Mrs. E. Fenton..	Dwelling....	None		14.00	None	Careless with candle.
" 27	11:16 a.m.	271	25 Bridge St.....	Brick.....	Phelps Realty Co.	A. H. Phillips...	Store.....	25.00	25,000	300.00	5,500	Unknown.
" 27	11:19 p.m.	Tel.	124 Main St.....	Brick.....	F. L. Dunlap....	J. Constantinople		None		17.00	1,000	Careless smoking.
" 28	8:03 a.m.	34	655 Main St.....	Brick.....	J. Tuleja.....	O. Steinbock....	Store.....	100.00	4,000	125.00	300	Unknown.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Feb. 28	2:58 p.m.	63	10 Sumner Ave...	Brick.....	E. H. Brown....	Mrs.N.B. L'see. M. L. Snider... M. L. Jackson. Mrs.M.A.Hicks	Dwelling....	$2,569.00	$85,000	$600.00 35.00 50.00 4.00	$1,000 None 500 1,000	Unknown.
" 28	3:20 p.m.	37	16 William St....	Frame.....	G. Gentile.....			12.00	2,000	None		Defective stovepipe.
Mar. 1	6:59 a.m.	41	53 Ferry St.....	Frame.....	J. Shibley.....	P. Mirab.....	Dwelling....	None		Slight		Lamp and curtain.
" 1	6:05 p.m.	Ther.	Harrison Ave....	Brick.....				None				Heat from gas lamp.
" 1	7:25 p.m.	still	36 Cleveland St..	Frame.....				None				Chimney fire.
" 1	11:50 p.m.	still	99 Oak St.....	Frame.....	I. Silverman.....	I. Silverman.....	Dwelling....	25.00	4,500	None		Rubbish.
" 2	2:18 a.m.	6	115 Bridge St....	Brick.....	Mary D. Goett'g.	G. Jackson.....	Store.....	240.00	20,300	92.70	1,500	Unknown.
" 2	2:40 a.m.	431	22 Morgan St....	Frame.....	P. Gordon.....	L. Sandusky.....	Barn.....	311.78	400	450.00	900	Unknown.
" 2	5:48 a.m.	Tel.	Off Wilbr'm Rd..	Frame.....	A. Bradley.....	E. D. Chagnon. J. S. Mayott...	Dwelling....	2,000.00	None	200.00 200.00	None 600	Broken lamp.
" 2	4:45 p.m.	still	443 State St.....	Frame.....				None		None		Chimney fire.
" 3	10:45 a.m.	Tel.	14 Roy st.....	Frame.....	W. G. Moran....			None		None		Chimney fire.
" 5	12:11 p.m.	Tel.	32 Everett St....	Frame.....				None		None		Defective chimney.
" 5	3:50 p.m.	still	Liberty St.....	Dump.....								Dumping grounds.
" 8	9:00 p.m.	Tel.	231 Main St.....	Brick.....	Ag'w'm R'lty Co.	J. Spero.....	Theater.....	None		102.00	2,000	Accident with film.
" 9	6:05 p.m.	Tel.	Rear H't'l G'm're	Rubbish...				None		None		Rubbish.
" 10	7:00 a.m.	still	Arch St.....	Freight car.	B. & M. R. R...			None		None		Hot cinders.
" 10	7:00 p.m.	Tel.	99 Elliot St.....	Frame.....				None		None		Smoke from furnace.
" 10	8:45 p.m.	Tel.	156 Mill St.....	Frame.....				None		None		Chimney fire.
" 11	7:05 a.m.	45	False alarm.....									False alarm.
" 12	2:58 a.m.	Tel.	So. End Dump..	Dump.....								Dumping grounds.
" 12	9:10 a.m.	43	Indian Orchard...					None		None		Chimney fire.
" 12	2:30 p.m.	still	Rear 928 Main St.	Frame.....	L. Rittenberg....	L. Rittenberg....	Barn.....	9.75	500	None		Child'n play'g with fire.
" 14	1:52 p.m.	Tel.	17 Plymouth St..	Frame.....	C. D. Anderson..	Max Klapp.....	Dwelling....	None		78.50	1,500	Matches in closet.
" 14	1:58 p.m.	Tel.	138 N. Main St..	Frame.....	T. M. Normandy		Dwelling....	None		None		Rubbish in cellar.
" 14	9:01 p.m.	41	80 Ferry St.....	Frame.....	H. Glickman....	N. Bergman.....	Dwelling....	47.00	18,000	220.00	800	Children and matches.
" 15	8:20 p.m.	Tel.	Main n L'mb'd St.	Trolley car.				None		None		Trolley car.
" 16	10:58 a.m.	Tel.	494 Main St.....	Brick.....	C. T. Shean.....	A. J. Hodges....	Office.....	None		6.00	500	Curtain and gas stove.
" 16	2:40 p.m.	Tel.	17 Richelieu Pl..	Frame.....	Seltzer & Green..	None.....	Dwelling....	20.00	2,700	None		Careless workman.
" 17	5:45 a.m.	Ther.	Forbes & Wallace					None		None		Defective thermostat.
" 17	8:05 a.m.	Tel.	109 W'stm'ster St.	Frame.....	G. A. Hapgood..			None		None		Rubbish in cellar.
" 17	7:00 p.m.	still	36 Vernon St....	Rubbish...								Rubbish.
" 17	10:15 p.m.	21	138 State St.....	Brick.....	A.F.H.Pillsbury..	R.W.R. C'l Co. M.J.Hyder Co..	Store.....	20.00	1,500	177.75 1,712.24	1,100 8,000	Unknown.
" 18	9:39 a.m.	Tel.	597 Chestnut St..	Frame.....				None		None		Chimney fire.
" 19	6:17 p.m.	25	81-83 Dwight St..	Brick.....	W. J. Hyland....	W. H. Baxter... W. G. Jasper.. C.H.Th's & Co. J. A. Smeaton.. J. Friedman...	Shop.....	1,303.00	20,000	150.00 300.00 1,362.99 983.00 4,000.00	6,100 None 3,000 1,200 7,500	Unknown.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Mar. 21	7:17 p.m.	Tel.	52 Bliss St.	Brick				None		None		Chimney fire.
" 22	10:06 a.m.	Tel.	146 Belmont Ave.	Grass								Grass fire.
" 22	6:40 p.m.	Tel.	School St.	Frame				None		None		Thawing.
" 22	9:35 p.m.	still	Walnut St.	Trolley car.				None		None		Trolley car.
" 22	10:04 p.m.	Tel.	Patton St.	C'nv's cov'r				None		None		Child'n play'g with fire.
" 23	10:47 a.m.	Tel.	22 Peabody Lane.					None		None		Unusual smoke.
" 23	3:45 p.m.	Tel.	40 Locust St.	Brick			Dwelling	None		None		Spontaneous comb'st'n.
" 23	5:26 p.m.	Tel.	Wason Ave.	Grass								Grass fire.
" 24	9:40 a.m.	still	South St.	Dump								Dumping grounds.
" 24	11:00 a.m.	still	Indian Orchard	Brush								Brush fire.
" 24	6:30 p.m.	73	159 North St.	Frame	B. Black	J. Springer	Dwelling	None		None		Careless smoking.
" 24	9:45 p.m.	Tel.	39 Main St.	Brick	Mary D. Goett'g.	P. M. Lynch	Dwelling	$22.00	$45,000	$6.62	$2,000	Careless smoking.
" 25	3:08 p.m.	Tel.	Warriner Ave.	Grass								Grass fire.
" 25	4:58 p.m.	Tel.	Wellington St.	Grass								Grass fire.
" 25	6:59 p.m.	Tel.	Allen St.	Brush								Brush fire.
" 26	6:57 a.m.	493	Fisk Ave.	Brick	Ham. Cor. W. Co.	Ham. Cor. W. Co.	Factory	None		None		Heat from kilns.
" 26	1:45 p.m.	Tel.	State St.	Grass								Grass fire.
" 26	2:54 p.m.	Tel.	Summer St.	Grass								Grass fire.
" 26	3:17 p.m.	still	Indian Orchard	Brush								Brush fire.
" 26	4:55 p.m.	Tel.	Franklin St.	Grass								Grass fire.
" 26	5:40 p.m.	still	270 North St.	Frame	Lizzie Goldberg.	Lizzie Goldberg.	Dwelling	89.00	3,500	None		Electric wires.
" 26	9:17 p.m.	Tel.	75 Ferry St.	Brick	Rebecca Adaskin.			None		None		Unknown.
" 29	6:54 p.m.	Tel.	White & S'm'r Av.	Grass								Grass fire.
" 29	8:37 p.m.	Tel.	136 Florence St.	Frame	Asbury Church	Asbury Church	Church	98.00	16,500	None		Lightning.
" 30	2:35 p.m.	still	Gilmore Hotel	Brick				None		None		Careless smoking.
" 31	1:33 p.m.	Tel.	Sanford St.	Brick	Brewer Drug Co.	Brewer Drug Co.		None		None		Acid.
Apr. 1	4:49 a.m.	Tel.	Ft. of Marg't St.	Brick	S. R. R. Co	S. R. R. Co.		Slight				Hot cinders.
" 1	10:57 a.m.	Tel.	Rear 115 Ald'n St.	Rubbish								Rubbish.
" 1	8:07 p.m.	462	58 Orchard St.	Frame	A. Feinberg	A. Feinberg	Dwelling	40.00	2,500	50.00	400	Accident with lamp.
" 2	4:30 p.m.	Tel.	Phœnix St.	Brush								Brush fire.
" 3	6:07 p.m.	74	Prospect St.	Brush								Brush fire.
" 4	5:53 p.m.	still	267 North St.	False								Escaping steam.
" 5	6:08 p.m.	still	43 James St.	Frame								Unusual smoke.
" 6	3:55 p.m.	Tel.	Sullivan St.	Grass								Grass fire.
" 6	6:03 p.m.	Tel.	Wilbraham Road	Grass								Grass fire.
" 6	9:04 p.m.	Tel.	110 Bancroft St.	Frame	Dora Rattner.	Dora Rattner.	Dwelling	17.00	2,000	75.00	500	Unknown.
" 7	12:49 a.m.	Tel.	Hotel Kimball.	Brick			Hotel					Fat spilled on range.
" 7	3:59 p.m.	Tel.	496 N. Main St.	Frame	J. H. Spenkock.	L. B. Whipple.	Dwelling	115.00	3,000	557.63	1,000	Oil heater.
" 7	4:45 p.m.	still	Parkside Ave.	Forest								Forest fire.
" 7	9:55 p.m.	Tel.	123 Carew St.	Brick	E. A. Dexter	E. A. Dexter	Bakery	48.00	72,000	None		Unknown.
" 8	11:45 a.m.	Tel.	Cambridge St.	Grass								Grass fire.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
						Dr.S.M. Wilbur				$910.70	$2,000	
						Dr. J. F. Bliss				2,137.20	1,000	
						T. J. Lasares				175.00	800	
Apr. 8	5:43 p.m.	13	319 State St.	Brick	M. & L. Browdy.	Miss J. O'Con'l	Residence	$7,000.00	$14,000	2,500.00	1,000	Unknown.
						T. V. Inwood				500.00	None	
						Mrs.L.F. H'st'n				22.23	500	
						Mrs. P. Tower				1,500.00	4,500	
						Mrs. K.M. Rice				352.00	500	
" 9	3:25 p.m.	still	373-375 Main St.	Brick		H. Isenberg & Co.	Store	None		40.00	10,000	Careless smoking.
" 10	12:45 p.m.	Tel.	642 State St.	Rubbish	N. L. Elmer							Careless burn'g of r'b'h.
" 11	7:30 a.m.	Tel.	31½ Harrison Av.	Brick	Carr Estate	Porceco Mfg. Co.	Factory	135.00	10,000	127.00	1,000	Unknown.
" 11	2:10 p.m.	Tel.	Off Berkshire St.	Forest								Forest fire.
" 12	1:57 p.m.	Tel.	White St.	Grass								Grass fire.
" 12	2:10 p.m.	Tel.	James St.	Grass, etc.								Grass and fence.
" 12	9:15 p.m.	Tel.	Toll Bridge	Bridge								Unknown.
" 13	12:19 p.m.	Tel.	Rowland Ave.	Grass								Grass fire.
" 13	1:40 p.m.	83	307 Hancock St.	Frame			Store					Incendiary.
" 13	1:47 p.m.	15	88 Spring St.	Brick	R. Gilson	C. H. Fish	Dwellings	229.00	30,000	50.00	1,000	Unknown.
						A. Simpson				20.00	None	
" 13	9:49 p.m.	7	196 North St.	Frame	M. Simcovitz	J. Mozelesky	Dwelling	45.00	1,500	60.00	500	Unknown.
" 15	2:22 p.m.	Tel.	313 Main St.	Brick	Fuller R'lty Tr'st	M. S. & Sons Co.	Store	None		19.80	20,000	Careless smoking.
" 16	12:10 p.m.	Tel.	Springfield St.	Forest								Forest fire.
" 17	12:08 a.m.	67	335 Dickinson St.	Brick	Bishop Beaven	Holy Name Soc.	Society	2,355.00	19,000	396.50	1,000	Unknown.
" 17	10:14 a.m.	still	Mass'usetts Ave.	Grass								Grass fire.
" 17	6:05 p.m.	271	Toll Bridge	Bridge								Careless smoking.
" 18	11:43 a.m.	43	Indian Orchard	Brush								Brush fire.
" 18	12:48 p.m.	Tel.	Allen St.	Grass								Grass fire.
" 18	1:00 p.m.	Tel.	Chestnut "843"	Grass								Grass fire.
" 18	1:44 p.m.	Tel.	Sumner Ave.	Grass								Grass fire.
" 18	1:45 p.m.	still	Locust St.	Grass								Grass fire.
" 18	4:35 p.m.	4	Indian Orchard	Brush								Brush fire.
			65 Sharon St.	Frame	S. Rickless	H. Goodman	Barn	450.00	None	600.00	None	
				Frame	S. Rickless		Dwelling	247.00	5,000			
" 19	1:31 a.m.	41	66 Ferry St.	Frame	Jos. Freedman	Jos. Freedman	Storehouse	60.00	None	3,100.00	7,500	Unknown.
			Ferry St.		I. Glickman			40.00	18,000			
" 19	11:17 a.m.	Tel.	67 Benton St.	Frame			Dwelling					Chimney fire.
" 20	12:57 p.m.	Tel.	Albany St.	Dump								Dumping grounds.
" 20	4:00 p.m.	still	320 High St.	Automobile	F. C. Smith							Gasoline.
" 22	11:37 a.m.	Tel.	Springfield Hosp'l	Grass								Grass fire.
" 22	11:58 a.m.	Tel.	Near Dry Bridge	Brush								Brush fire.
" 22	12:40 p.m.	Tel.	Carew St.	Brush								Brush fire.
" 22	1:00 p.m.	Tel.	Randall Ave.	Brush								Brush fire.
" 22	1:10 p.m.	Tel.	Allen St.	Grass, etc.	Davis Estate	McMannus	Barn	30.00	None	10.00	None	Sparks from locom'tive.
" 22	1:20 p.m.	Tel.	White St.	Grass								Grass fire.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Apr. 22	2:38 p.m.	Tel.	St. James Ave...	Brush.....								Brush fire.
" 23	12:41 a.m.	41	55 Sharon St.....	Brick.....	Spr. Nat. Bank..	Goldahar & N'v'k	Barber shop..	$757.24	$2,500	$116.00	$500	Unknown.
" 23	8:05 a.m.	still	Indian Orchard...	Grass.....								Grass fire.
" 23	7:00 p.m.	still	Off Plainfield St..	Grass.....								Grass fire.
" 24	10:50 a.m.	27	259 Main St., I. O.	Frame....			Shed.....	None				Hot ashes.
" 24	1:46 p.m.	still	Ft. of Stafford St.	Grass.....								Grass fire.
" 24	1:50 p.m.	Tel.	Prospect Park....	Brush.....								Brush fire.
" 24	1:55 p.m.	Tel.	Boston Road.....	Brush.....								Brush fire.
" 24	3:10 p.m.	Tel.	Indian Orchard...	Grass.....								Grass fire.
" 24	6:52 p.m.	Tel.	Alden St.....	Rubbish...								Rubbish.
" 24	6:59 p.m.	74	Massasoit St.....	Grass.....								Grass fire.
" 24	6:59 p.m.	Tel.	Allen St.....	Grass.....								Grass fire.
" 25	12:54 p.m.	Tel.	Off Liberty St....	Brush.....								Brush fire.
" 25	1:48 p.m.	Tel.	St. James Ave....	Forest, etc.	W. E. Murkland.					125.00	None	Forest fire.
" 25	2:40 p.m.	Tel.	Off Allen St.....	Forest.....								Forest fire.
" 25	2:50 p.m.	Tel.	Boston Rd., I. O..	Frame....	E. Trudeau.....	S. J. Benoit.....	Dwelling....	45.00	1,500	264.00	1,000	Unknown.
" 25	4:05 p.m.	Tel.	Indian Orchard...	Brush.....								Brush fire.
" 26	9:37 a.m.	Tel.	437 Central St...	Rubbish...								Rubbish.
" 26	11:39 a.m.	Tel.	Allen St.....	Forest.....								Forest fire.
" 26	3:05 p.m.	Tel.	104 Ft. Pl's'nt Av.	Brush.....								Brush fire.
" 26	3:40 p.m.	Tel.	Birnie Ave.....	Freight car.								Hot ashes.
" 26	3:57 p.m.	Tel.	Toll Bridge.....	Bridge....				Slight				Careless smoking.
" 26	7:44 p.m.	Tel.	Boston Road....	Brush, etc..	A. Bradley.....		Cord wood...			200.00	None	Brush, cord wood.
" 26	9:30 p.m.	Tel.	St. Mich'l's Cem..	Brush.....								Brush fire.
" 27	8:49 p.m.	Tel.	S'm'r Ave. & Allen	Forest.....								Forest fire.
" 27	4:10 p.m.	Tel.	Liberty St.....	Brush.....								Brush fire.
" 27	5:15 p.m.	Tel.	Wentworth Ave..	Brush.....								Brush fire.
" 27	5:59 p.m.	Tel.	Wilbraham Road.	Brush.....								Brush fire.
" 28	1:35 a.m.	still	234½ W'h'gt'n St.	Brick.....	F. T. Ley.....	G. T. Pecoraro...	Store.....	63.00	15,000	171.00	300	Electric flatiron.
" 28	8:32 a.m.	still	39 William St....	Frame....	A. Gentile.....	A. Gentile.....	Dwelling....	40.00	7,000	None		Defective chimney.
" 28	2:23 p.m.	Tel.	833 Chestnut St..	Brush.....								Brush fire.
" 28	3:32 p.m.	Tel.	Hampden Park...	Grass.....								Grass fire.
" 28	9:45 p.m.	24	53 Pynchon St...	Frame....	N. L. Elmer.....	S. D. Couch...	Dwelling....	875.00	4,000	20.00	None	Unknown.
						S. F. Kitchen...				30.00	None	
						M. Joy.....				40.00	None	
" 29	8:39 a.m.	Tel.	137½ State St...									Unknown.
" 29	11:15 a.m.	still	152 H'pden, I. O..	Frame....			Shed.....					Children and matches.
" 29	11:41 a.m.	Tel.	Wellington St....	Grass.....								Grass fire.
" 29	12:10 p.m.	Tel.	Newman's Cove..	Brush.....								Brush fire.
" 29	12:20 p.m.	Tel.	Woodmont St....	Brush.....								Brush fire.
" 29	2:16 p.m.	Tel.	150 Patton St....									Unknown.
" 29	2:36 p.m.	Tel.	No. End Bridge..	Bridge....								Unknown.
" 29	3:37 p.m.	83	56 Manhattan St.	Rubbish...	J. F. Hine.....							Children and matches.
" 29	4:02 p.m.	Tel.	Forest St.....	Grass.....								Grass fire.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Apr. 29	6:32 p.m.	Tel.	Quincy St.....	Bonfire....								Bonfire.
" 29	7:10 p.m.	still	Camp Grounds..	Grass.....								Grass fire.
" 29	9:25 p.m.	Tel.	Johnson & Earl..	Bonfire....								Bonfire.
" 29	10:54 p.m.	961	222 Hancock St..	Frame.....	A. E. Littlefield..	A. E. Littlefield..	Shop.....	$55.00	$800	None		Sparks from forge.
" 30	10:50 a.m.	Tel.	14 Taylor St.....	Brick.....								Back draught.
" 30	10:22 p.m.	7	255 Sharon St....	Brick.....	M. Greenberg...			15.00	10,000	None		Broken gas fixture.
May 1	5:15 p.m.	Ther.	Mill St.....	Storehouse.	Spr. Waste Co...	Spr. Waste Co...						Spontaneous comb'st'n.
" 1	9:10 p.m.	Tel.	Armory St.....	Dump.....								Dumping grounds.
" 2	1:42 p.m.	Tel.	Forest Park Ave..	Grass.....								Grass fire.
" 2	2:27 p.m.	Tel.	Off Wilbr'm Road	Brush.....								Brush fire.
" 2	2:37 p.m.	still	Springfield St....	Grass.....								Grass fire.
" 2	4:05 p.m.	still	B'kshire St., I. O..	Brush.....								Brush fire.
" 2	4:12 p.m.	still	Oakland St.....	Grass.....								Grass fire.
" 2	5:05 p.m.	Tel.	Orchard St.....	Frame.....								Chimney fire.
" 3	2:25 a.m.	Tel.	Albany St.....	Dump.....								Dumping grounds.
" 3	12:35 p.m.	Tel.	211 W'th'gton St.	Brick.....								Rubbish in cellar.
" 3	12:54 p.m.	Tel.	Rear of Almsh'se.	Brush.....								Brush fire.
" 3	1:05 p.m.	Tel.	Maynard St.....	Brush.....								Brush fire.
" 3	3:15 p.m.	Tel.	Maynard St.....	Brush.....								Brush fire.
" 3	4:45 p.m.	Tel.	Parkside Ave....	Brush.....								Brush fire.
" 3	5:11 p.m.	Tel.	Liberty St.....	Brush.....								Brush fire.
" 3	5:59 p.m.	Tel.	Toll Bridge.....	Bridge.....								Careless smoking.
" 3	6:05 p.m.	still	Van Horn R's'rv'r	Brush.....								Brush fire.
" 4	11:00 a.m.	Tel.	Bowdoin St.....	Dump.....								Dumping grounds.
" 4	1:26 p.m.	Tel.	56 Harrison Ave..	Brick.....								Unusual smoke.
" 4	4:45 p.m.	Tel.	Allen & S'm'r Avs.	Brush.....								Brush fire.
" 4	5:23 p.m.	Tel.	South St. Dump..	Dump.....								Dumping grounds.
" 5	1:51 a.m.	71	Dover St.....	Frame.....	J. W. Adams....	J. W. Adams....	Barn.....	985.00	3,100	$191.00	$200	Unknown.
" 5	9:30 a.m.	still	South St. Dump..	Dump.....								Dumping grounds.
" 5	11:43 a.m.	72	Massasoit St.....	Grass.....								Grass fire.
" 5	2:34 p.m.	Tel.	Parkside Ave.....	Brush.....								Brush fire.
" 5	2:44 p.m.	Tel.	Parkside Ave.....	Brush.....								Brush fire.
" 5	7:15 p.m.	still	Indian Orchard...	Brush.....								Brush fire.
" 5	7:19 p.m.	Tel.	16 Patton St.....	Brick.....								Hot ashes.
" 5	8:25 p.m.	961	116 King St.....	Frame.....	A. & L. Weber..	A. & L. Weber...	Dwelling....	700.00	2,500	1,526.33	2,500	Unknown.
" 5	9:35 p.m.	still	Van Horn Res'v'r	Brush.....								Brush fire.
" 6	9:51 a.m.	Tel.	Abbe Ave.....	Grass.....								Grass fire.
" 6	11:51 a.m.	Tel.	Belmont Ave.....	Brush.....								Brush fire.
" 6	12:03 p.m.	Tel.	Hunt Road.....	Forest.....								Forest fire.
" 6	12:26 p.m.	Tel.	Courthouse.....	Rubbish..								Rubbish.
" 6	12:42 p.m.	Tel.	Wilbraham Road.	Brush, etc.	C. A. Barth'mew.					400.00	300	Forest fire.
" 6	1:16 p.m.	Tel.	Commonw'lth Av.	Brush.....								Brush fire.
" 6	2:45 p.m.	Tel.	King St.....	False.....								False alarm.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
May 6	2:50 p.m.	Tel.	Sixteen Acres	Brush, etc.	A. D. Prouty					$25.00	None	Brush fire.
" 6	11:02 p.m.	34	55 Central St.	Brick	Dr. C. C. Henin.	F. C. Spencer	Dwelling	$25.00	$2,000	15.00	None	Broken lamp.
" 7	8:38 a.m.	Tel.	46 Florida St.	Frame	H. L. Gardner	H. L. Gardner	Garage	None		10.00	$1,000	Gasoline.
" 7	9:55 a.m.	Tel.	Sixteen Acres	Forest								Forest fire.
" 7	4:07 p.m.	Tel.	Allen St.	Forest								Forest fire.
" 7	4:20 p.m.	Tel.	Forest Park	Forest								Forest fire.
" 7	6:15 p.m.	still	198 Chestnut St.	Brick, etc.	Donahue Bros.	N. Zeo	Store	None		10.00	9,000	Careless smoking.
" 7	9:05 p.m.	Tel.	Hamburg St.	Brush								Brush fire.
" 8	1:08 a.m.	41	Liberty St.	Frame	Sarah M. Call'an.	A. Hassinis	Dwelling	150.00	3,500	90.00	800	Unknown.
" 8	11:54 a.m.	Tel.	Hunter Place	Dump								Dumping grounds.
" 8	2:15 p.m.	Tel.	North End Bridge	Bridge								Unknown.
" 8	3:55 p.m.	Tel.	Hunt Road	Brush								Brush fire.
" 8	5:47 p.m.	Tel.	68 Bliss St.	Frame		A. Vancini	Dwelling	None				Sparks from chimney.
" 8	6:35 p.m.	Tel.	Cottage St.	Brush								Brush fire.
" 9	1:48 a.m.	Tel.	South St. Dump	Dump								Dumping grounds.
" 9	7:44 p.m.	Tel.	Elm St.	Gasoline								Gasoline.
" 10	11:38 a.m.	473	Camp Grounds	Brush								Brush fire.
" 10	3:30 p.m.	Tel.	49 Orchard St.	Rubbish								Rubbish.
" 10	9:13 p.m.	462	West St.	Shanty	City			Slight				Unknown.
" 11	10:00 a.m.	still	Indian Orchard	Brush								Sparks from locom't've.
" 11	2:24 p.m.	Tel.	Allen St.	Grass, etc.								Shavings from grass.
" 11	3:30 p.m.	Tel.	Indian Orchard	Brush								Brush fire.
" 11	6:18 p.m.	Tel.	Alden St.	Brush								Brush fire.
" 11	7:34 p.m.	78	84 Tenth St.	Frame	Louis Nathan	R. White	Dwelling	10.00	2,000	22.00	500	Curtain and gas jet.
" 11	7:45 p.m.	Tel.	Albany St.	Dump								Dumping grounds.
" 12	5:45 p.m.	Tel.	143 Main St., I. O.	Frame								Chimney fire.
" 13	12:43 p.m.	Tel.	C'r'w&St.Jas.Ave.	Brush								Brush fire.
" 13	6:37 p.m.	Tel.	C'r'w&St.Jas.Ave.	Brush								Brush fire.
" 13	8:00 p.m.	Tel.	Indian Orchard	Brush								Brush fire.
" 14	6:52 p.m.	Tel.	W'b'm Av.&H'k'y	Automobile	Hendee Mfg. Co.							Gasoline.
" 15	10:30 a.m.	28	70 Vernon St.	Brick	Mrs. J. E. Linc'ln	W. T. Stephens	Dwelling	75.00	2,000	27.25	800	Curtain and gas jet.
" 15	10:38 a.m.	Tel.	Mass'ch'tts Ave.	Brush								Brush fire.
" 15	10:50 a.m.	Tel.	King St. Ext'n.	Brush								Brush fire.
" 15	12:19 p.m.	3	Railroad Row	Furniture	J. E. Kelly					400.00	None	Unknown.
" 15	12:20 p.m.	still	Indian Orchard	Brush								Brush fire.
" 15	12:50 p.m.	still	Liberty St.	Dump								Dumping grounds.
" 15	1:07 p.m.	Tel.	Indian Orchard	Brush								Brush fire.
" 15	1:56 p.m.	4	Indian Orchard	Brush								Brush fire.
" 15	4:20 p.m.	Ther.	168 Lyman St.	False								Defective thermostat.
" 15	5:45 p.m.	still	Indian Orchard	Brush								Brush fire.
" 15	10:07 p.m.	Tel.	71 Allen St.	Frame	W. J. Russell	W. J. Russell	Dwelling					Chimney fire.
" 15	10:47 p.m.	Tel.	Rear 157 D'k'son	Brush								Brush fire.
" 16	9:35 a.m.	Tel.	305 State St.	Brick	Wm. B. Walker	Wm. B. Walker						Chimney fire.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
				Brick	A. A. Call	A. A. Call	Store	$9,972.00	$10,000	$5,800.00	$5,000	
						Cora Alexander				170.00	500	
						C. P. Nelson				334.35	1,000	
						Dr. E. L. Davis				306.00	1,500	
				Brick	N. D. Winter	L. J. Ball Co	Store	6,148.00	16,000	13,441.75	19,000	
May 16	12:30 p.m.	23	144 State St.	Brick	G. R. Estabrook	G. R. Estabrook	Store	8,223.00	15,000	5,098.00	10,500	Unknown.
						C. H. Maloney				643.33	1,000	
						M. H. Tanner				284.99	700	
						E. S. Curtiss				500.00	None	
						W. C. Akin				1,000.00	None	
			27 Sanford St.		Dr. B. D. Pierce	Dr. B. D. Pierce		25.00	500			
			R'r 29&51 S'f'd.	Frame	T. E. King			100.00	1,000			
" 16	8:56 p.m.	Tel.	21 Burr St.	Bonfire								Bonfire.
" 17	9:03 a.m.	still	132 Dickinson St.	Frame	W. A. Newton	T. E. Barnes	Dwelling	20.00	2,500			Sparks from chimney.
" 17	9:45 a.m.	Tel.	E'c'd Av. & D'k'n	Brush								Brush fire.
" 17	10:25 a.m.	Tel.	40 Logan St.	Frame			Dwelling					Meat on stove.
" 17	11:45 a.m.	still	S. of Camp Gr'ds.	Brush								Brush fire.
" 17	5:39 p.m.	Tel.	Rear of Boys' Cl'b	Rubbish								Rubbish.
" 17	6:55 p.m.	Tel.	Rear of Boys' Cl'b	Rubbish								Rubbish.
" 17	7:53 p.m.	Tel.	St. James Ave.	Brush								Brush fire.
" 17	11:45 p.m.	still	Liberty St.	Grass								Grass fire.
" 18	6:17 p.m.	41	47 Ferry St.	False								False alarm.
" 18	10:44 p.m.	Tel.	17 Sumner Ter.	Rubbish								Rubbish.
" 19	1:33 a.m.	612	South St.	Frame	F. J. Richards	F. J. Richards	Factory	676.92	33,000	1,334.35		Unknown.
" 22	3:35 p.m.	Tel.	33 Sanford St.	Gasoline								Gasoline.
" 22	4:01 p.m.	Tel.	Magazine St.	Dump								Dumping grounds.
" 22	5:12 p.m.	Tel.	Ft. of York St.	Car								Hot box.
" 23	4:50 a.m.	Tel.	Magazine St.	Dump								Dumping grounds.
" 23	4:52 p.m.	Tel.	Union Station	Frame			Store room					Sparks from stack.
" 23	7:37 p.m.	still	483 State St.	Frame			Hotel					Chimney fire.
" 23	8:17 p.m.	Tel.	50 Essex St.	Frame			Dwelling					Chimney fire.
" 25	11:00 p.m.	Tel.	Magazine St.	Dump								Dumping grounds.
" 26	8:55 a.m.	Tel.	142 Essex St.	N'dl'ss al'm								Unusual smoke.
" 26	1:22 p.m.	Tel.	Magazine St.	Dump								Dumping grounds.
" 26	11:00 p.m.	Tel.	Magazine St.	Dump								Dumping grounds.
" 27	3:40 p.m.	still	Bond St.	Rubbish	S. S. R. R.							Rubbish.
" 27	8:05 p.m.	Tel.	96 Main St.	Awning	Hall & Stewart	Hall & Stewart				17.00	2,800	Careless smoking.
" 28	1:00 p.m.	still	South St.	Dump								Dumping grounds.
" 28	9:12 p.m.	981	161 Alden St.	Frame	Chas. Rood	D. A. Smith	Dwelling	400.00	3,000	50.00	None	Careless with lantern.
" 29	11:20 a.m.	still	47 Merwin St.	Frame	C. E. Halstead		Dwelling					Hot ashes.
" 29	6:21 p.m.	Tel.	So. End Bridge	Bridge								Unknown.
" 29	11:12 p.m.	Tel.	Hooker School	Brick								Gas left burning.
" 30	12:22 p.m.	462	West St. Dump	Shanty				Slight				Unknown.

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Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
June 1	11:13 p.m.	9	220 Chestnut St..	Brick.....	Sp. Wh. Gro. Co.	Sp. Wh. Gro. Co.	Store.....	$1,794.00	$18,000	$13,329.50	$37,800	Unknown.
" 2	5:35 p.m.	7	220 Chestnut St..	Shed.....	Sp. Wh. Gro. Co.	Sp. Wh. Gro. Co.	Storage.....	None		None		Children and matches.
" 2	6:23 p.m.	7	99 Liberty St....	Brick.....	Sp. Foundry Co..	B. S. Elevator Co.	Factory.....	494.00	54,000	188.00	1,500	Unknown.
" 2	9:15 p.m.	7	99 Liberty St....	Brick.....	Sp. Foundry Co..	B. S. Elevator Co.	Factory.....	None		None		Rek'd'g of former fire.
" 2	11:24 p.m.	741	False.....									False alarm.
" 4	7:45 p.m.	Tel.	218 Sumner Ave..									False alarm.
" 4	7:57 p.m.	512	31 Brown St.....	Frame....	E. P. Miller.....	E. P. Miller.....	Dwelling....	40.00	4,000	50.00	None	Curtain and gas jet.
" 5	6:44 a.m.	25	345 Bridge St....	Brick.....	E. S. Refrig. Co..	E. S. Refrig. Co..	Storage.....	4,179.00	77,000	None		Unknown.
" 5	10:22 a.m.	421	83½ Main St....	Brick.....	W. E. Parsons...	H. Sosner..... / JennieM.M'sh'l	Store & dws..	10.44	5,000	300.00 / 3.00	2,000 / 500	Unknown.
" 9	3:07 p.m.	Tel.	Hotel Kimball...	Brick.....			Hotel.....	None		None		Grease.
" 9	5:15 p.m.	still	Wason Ave.....	Dump.....								Dumping grounds.
" 10	3:15 p.m.	still	Court Square....	Trolley car.								Trolley car.
" 10	3:30 p.m.	Tel.	Forest St.....	Dump.....								Dumping grounds.
" 13	5:34 a.m.	69	53 White St.....	Frame....	B. Powell.....	R. Sheriff.....	Dwelling....	None		10.00	None	Incubator.
" 13	1:30 p.m.	Tel.	61 Park St.....	Frame....	A. J. Flanagan...		Dwelling....	None		None		Chimney fire.
" 18	6:25 p.m.	still	State & Walnut...	Trolley car.								Trolley car.
" 19	11:07 a.m.	Ther.	Gilbert & Barker.	False.....								False alarm.
" 19	9:05 p.m.	Tel.	Eagle St.....	Dump.....								Dumping grounds.
" 19	9:17 p.m.	25	Harrison Ave....	Brick.....								Chimney fire.
" 19	9:21 p.m.	7	173 Liberty St...	Brick.....	M. J. Br'n & Son.	A. Colby.....	Dwelling....	220.00	3,000	146.60	2,000	Unknown.
" 19	11:11 p.m.	78	108 Greenw'd St..	Frame....	L. Katler.....	L. Katler.....	Dwelling....	15.00	5,000	15.00	1,000	Careless with candle.
" 20	12:25 a.m.	Tel.	42 Fort St.....	Frame....				None		None		Fumigating.
" 20	5:40 p.m.	612	Pecousic Ave....	Frame....	C. A. Barth'mew.	C. H. Barth'mew.	Mill.....	50.00	500	None		Sparks from stack.
" 20	7:46 p.m.	26	343 Main St.....	Brick.....	A. Steiger Co....	A. Steiger Co....	Store.....	None		None		Electric wires.
" 21	12:30 p.m.	still	98 Liberty St....	Logs.....								Children and matches.
" 21	1:45 p.m.	78	101 Tenth St....	Frame....			Dwelling....	None		None		Chimney fire.
" 22	9:57 a.m.	Tel.	795 Sumner Ave..	Frame....	H. Kitson.....	L. D. Burlingame	Dwelling....	5.00	5,000	8.00	1,500	Burning fat.
" 23	9:16 a.m.	5	Rear 186 W'r'gt'n	Rubbish...	Sp. R'lty Tr. Co..			25.00	150,000	None		Rubbish.
" 23	3:12 p.m.	Tel.	St. James Av. Ex.	Brush.....								Brush fire.
" 23	3:57 p.m.	Tel.	82 Waltham Ave..	Coal shed..	E. C. Brownell..	E. C. Brownell...	Coal shed....	10.00	None	None		Spark from locom'tive.
" 24	1:00 p.m.	964	149 Lebanon St..	Frame....	E. T. Davis.....	N. Lafleur.....	Dwelling....	None		32.00	500	Spark from match.
" 24	3:40 p.m.	Tel.	305 W'r'gton St...	Brick.....	C. J. Bel'my Est.	C. J. Bel'my Est.	Newspaper...	19.46	12,000	None		Spark from stack.
" 25	6:30 a.m.	still	South St.....	Dump.....								Dumping grounds.
" 25	3:27 p.m.	Tel.	Albany St.....	Dump.....								Dumping grounds.
" 26	12:35 a.m.	Tel.	55 Ingersoll Gr...	Automobile	W. R. Weiser....					2,000.00	2,000	Automobile.
" 26	9:18 a.m.	Tel.	Wilbraham Ave...	Automobile	Talt Bros.....							Automobile.
" 26	8:05 p.m.	still	410 Main St.....	Brick...				None		None		Electric wires.
" 26	9:05 p.m.	Tel.	523 State St.....	Brick.. ..				None		None		Chimney fire.
" 27	9:40 a.m.	still	South St.....	Dump. ..								Dumping grounds.
" 27	2:25 p.m.	still	523 State St.....	Brick. ..				None		None		Chimney fire.
" 29	10:19 a.m.	Tel.	Allen St.....	Forest. ..								Forest fire.
" 30	11:45 a.m.	Tel.	Rear 145 Main St.	Rubbish								Rubbish.
" 30	12:42 p.m.	Tel.	Talcott Ave.....	Frame...	W'c'x, C'ld'r&Co.	W'c'x, C'ld'r&Co.	Storage.....	Slight		Slight		Unknown.
" 30	4: 5 p.m.	still	Indian Orchard...	Dump.....								Dumping grounds.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
July 1	11:53 a.m.	still	No. End Bridge..	Bridge....								Unknown.
" 1	4:40 p.m.	Tel.	229 Eastern Ave..	Frame....	F.Beals & Son...							Back draft.
" 1	6:00 p.m.	Tel.	St. James Ave....	Brush.....								Brush fire.
" 3	12:40 a.m.	7	228 Ferry St.....	Barn.....	L. Nemirove....	L. Gordon.....	Barn.....	$600.00	$2,000	$100.00	None	Unknown.
" 3	12:40 a.m.	7	230 Ferry St.....	Brick.....	J. Freedman....	J. Freedman....			Com. Ins.	1,184.67	$1,500	
" 3	4:45 a.m.	Tel.	228 Ferry St.....									Rek'dl'g of former fire.
" 3	3:30 p.m.	Tel.	198 St. James Av.	Frame....	A. W. Dodge....	A. W. Dodge....	Dwelling....	25.60	6,000			Fireworks.
" 3	3:56 p.m.	Tel.	360 Chestnut St..	Brick.....								Chimney fire.
" 4	12:17 a.m.	78	Franklin St.....	Bonfire....								Bonfire.
" 4	1:26 a.m.	Tel.	123 Essex St.....	Rubbish...								Fireworks.
" 4	1:32 a.m.	742	False.....									False alarm.
" 4	2:53 a.m.	795	Camp Grounds...	Frame....	Crumb.....		Dwelling....	Slight				Incendiary.
" 4	4:09 a.m.	84	482 Mill St.....	Brick.....	Dr. A. J. Flan'g'n	B. Fein.....	Store.....	425.00	8,950	574.44	1,000	Incendiary.
" 4	6:40 a.m.	Tel.	State & M'tle Sts.	Tree.....								Fireworks.
" 4	6:50 a.m.	still	57 Mason St.....	Frame....	S. F. Flagg.....	J. H. Barry.....	Dwelling....	10.00	1,000	25.00	None	Children and fire.
" 4	11:43 a.m.	3	247 Main St.....	Brick.....	Chapin Nat. B'nk	S. K. Ames.....				15.00	None	Careless smoking.
" 4	4:00 p.m.	Tel.	Taylor St.....	Rubbish...								Rubbish.
" 4	6:13 p.m.	Tel.	228 Ferry St.....	Rags.....								From former fire.
" 4	8:45 p.m.	Tel.	480 Belmont Av..	Frame....	E. T. Smith.....	E. T Smith.....	Dwelling....	4.45	2,500			Fireworks.
" 4	9:05 p.m.	58	99-101 Pr'cet'n St.	Frame....	Mrs. E.M. M'r'm	Dr. H. L Jewell..	Dwelling....	30.00	3,000	18.00	1,300	Fireworks.
" 4	10:00 p.m.	still	21 Dymon St.....	Frame....	L. H. Hall.....		Dwelling....	10.00	1,500	None		Fireworks.
" 5	1:40 a.m.	78	120 Congress St..	Frame....	J. Sarozinsky....	J. Sarozinsky....	Dwelling....	579.02	4,500	100.00	700	Unknown.
" 5	9:45 a.m.	964	36 Greene St.....	Frame....	J. Donovan.....	J. Donovan.....	Dwelling....	348.00	1,400	None		Defective chimney.
" 5	3:40 p.m.	still	Armory St.....	Frame....	Our Lady of H'pe		Church.....					Lightning.
" 5	4:39 p.m.	791	14 M'r'y Hill Ave.	Frame....	Mrs. Cath. White	E. J. Richards...	Dwelling....	111.00	3,000	34.00	1,000	Lightning.
" 5	5:00 p.m.	27	285 W'st'r, I. O..	Frame....	N. Goudreau....		Dwelling....	80.00	4,500			Lightning.
" 5	5:30 p.m.	29	6 Bay St., I. O..	Frame....	L. Duquette....		Dwelling....	100.00	1,500			Lightning.
" 6	11:40 a.m.	Tel.	72 Plainfield St..	Frame....	M. Askinass.....	M. J. Knight....	Dwelling....	30.00	3,500			Unknown.
" 6	4:14 p.m.	still	928 Main St.....	N'dl's al'm.								Needless alarm.
" 6	7:20 p.m.	6	Ludlow.....	Out of t'wn								Out of town.
" 6	7:37 p.m.	7	167 Ferry St.....	Brick.....	A. Abrahams....	E. Kamerman...	Store.....	60.00	3,500	73.71	150	Unknown.
" 6	9:36 p.m.	Tel.	108 Harvey St..	Frame....	Cora E. Wilkes..	Cora E. Wilkes..	Dwelling....	125.00	2,000	115.00	1,000	Lightning.
" 7	7:43 p.m.	41	91 Sharon St.....	Frame....	L. Rottner.....	M. Weiner.....	Dwelling....	25.00	8,500	6.00	300	Candle and curtain.
" 7	8:10 p.m.	Tel.	White & Scott Sts.	Pole.....								Electric wires.
" 7	11:19 p.m.	23	27-29 Dwight St..	Brick.....	M. Ehrlich.....	Mrs. J. F. Davin.	Store.....	None		33.50	1,000	Careless smoking.
" 8	12:15 p.m.	Tel.	228 Ferry St.....	N'dl's al'm.								Needless alarm.
" 8	9:15 p.m.	still	63 Pynchon St....	Frame....			Dwelling....					Chimney fire.
" 8	11:12 p.m.	42	130 Main St.....	Brick.....	J.C.&W.J. Burke	L. Robinson...	Store.....	400.00	19,658	1,306.42	10,000	Unknown.
						Sherman Bros..				50.00	1,200	
						C. W. Drake...				6.00	None	
" 9	1:30 a.m.	Tel.	South End Dump	Dump.....								Dumping grounds.
" 11	5:35 p.m.	still	South End Dump	Dump.....								Dumping grounds.
" 12	10:02 a.m.	41	179 Main St.....	Brick.....	Julia F. O'Con'll.	A. Zographos..	Stores.....	2,050.00	10,000	699.50	3,000	Unknown.
						Spr. Brew. Co..				157.00	2,500	
						D. Levin.....				150.00	None	
						T. A. Kelley..				900.00	None	

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings. Loss on	Buildings. Ins. on	Contents. Loss on	Contents. Ins. on	Cause and Circumstances of Fire.
July 12	12:47 p.m.	Tel.	Union & Dale Sts.	False.....								False alarm.
" 12	6:00 p.m.	Tel.	Boston Road....	Frame....	L. C. Holloway..	L. C. Holloway..	Dwelling....	$1,000.00	$700	$485.00	$450	Lightning.
" 15	10:47 a.m.	Tel.	83 Bradford St...	Brick.....	N. A. Bourdeau..			None				Waste chute.
" 15	1:56 p.m.	28	70 Vernon St....	Brick.....	Mrs. J. E. Linc'ln	W. T. Stephens..	Dwelling....	70.00	2,000	15.00	800	Careless smoking.
" 16	6:21 a.m.	24	384 Main St....	N'dl's al'm.								Back draught.
" 18	3:34 a.m.	342	67-69 Elmw'd St..	Frame....	E. & J. Wunsch..							Defect at gas meter.
" 19	6:15 p.m.	Tel.	319 State St....	Brick.....	M. & L. Browdy.							Rubbish.
" 20	4:00 p.m.	Tel.	South End Dump	Dump.....								Dumping grounds.
" 20	10:07 p.m.	23	27-29 Dwight St..	Shed.....	M. Ehrlich.....	Spr. Harness Co..		300.00	10,000	236.11	5,000	Unknown.
" 21	11:35 p.m.	Tel.	South End Dump	Dump.....								Dumping grounds.
" 22	2:42 a.m.	7	624 North St....	Frame....	H. & I. Goodless.	A. Aronson.....	Barn.....	240.00	8,400	175.00	200	Unknown.
			626 North St....	Brick.....	L. Simeovitz....	L. Simeovitz....		150.00	10,000	30.00	300	
						M. Zeo.....				15.00	500	
" 22	4:35 a.m.	421	Main & Tenth Sts.	Pole.....								Short circuit.
" 22	1:22 p.m.	still	North End Bridge									Unknown.
" 22	9:49 p.m.	14	Fairbanks Ave...	Frame....	P. Roicei.....	M. Zrevaigano...	Dwelling....	250.00	1,500	160.00	300	Unknown.
" 23	3:15 p.m.	23	453 Main St.....	Brick.....	Young.....	Baldwin's Lunch.						Fat boiled over.
" 26	9:45 p.m.	3	31 Lyman St.....	Brick.....	Spr. Power Asso..	T. J. J. Bishop...				17.00	300	Unknown.
" 26	10:49 p.m.	Tel.	B'ks're & Bay Rd.	Outbuild'g.	Liberty Switzer..			10.00	None			Unknown.
" 27	3:20 p.m.	still	Demond Ave....	Tree.....								Hollow tree.
" 28	3:28 p.m.	Tel.	77 Maple St.....	Brick.....	Fred'k H. Harris.	Fred'k H. Harris.	Dwelling....					Chimney fire.
" 30	6:48 a.m.	21	129 State St.....	Brick.....	G. C. Wilder....	W. H. Stadden..		98.00	14,000	499.32	15,900	Unknown.
" 30	11:19 p.m.	41	98 Ferry St.....	Frame....	H. Goodman....	S. Koccak.....	Dwelling....					Careless smoking.
" 31	1:10 p.m.	795	713 Liberty St...	Frame....	M. J. Brunton...	A. Gaudette.....	Dwelling....	50.00	2,500	12.00	1,000	Children and matches.
" 31	8:50 p.m.	still	Mill & Locust Sts.	Trolley car.								Trolley car.
Aug. 2	12:13 p.m.	3	35 Railroad Row.	Frame....	N. D. Winter....	L. Collier.....	Dwelling....					Careless with gasoline.
" 2	3:29 p.m.	Tel.	Liberty St.....	Rubbish...								Unknown.
" 3	4:16 a.m.	81	158 Walnut St...	Brick.....	C. A. Barth'mew.	M. E. Moulton.	Apartment...	1,329.00	40,000	200.00	None	Unknown.
						J. Brown.....				74.00	500	
						J. H. Atkinson.				845.00	500	
						W. P. Walsh...				150.00	None	
						Mrs. J. S. Hask's				12.00	1,000	
						N. Neirenstein.				12.00	500	
						W. Bryant....				50.00	None	
" 3	5:05 a.m.	still	28 Moore Ave....	Frame....	H. A. Sanderson..	J. W. Maroney...	Dwelling....	90.00	1,500	25.00	500	Unknown.
" 3	7:39 p.m.	45	B. & M. R. R. Y'd	Brick.....	B. & M. R. R...	B. & M. R. R...	Paint shop...					Spark from locom'tive.
" 8	9:00 a.m.	Tel.	38 School St....	Frame....			Dwelling....					Fat in gas stove.
" 8	9:00 a.m.	still	Dwight & Taylor.									Rubbish.
" 8	9:30 a.m.	still	South End Dump									Dumping grounds.
" 8	4:30 p.m.	still	Liberty St.....									Dumping grounds.
" 8	7:33 p.m.	7	175 Sharon St....	Frame....	H. Goodless.....	Becker & Son..	Stores & dws'.	200.00	8,000	400.00	2,000	Unknown.
						A. Wolfgong...				85.00	None	
" 9	9:00 p.m.	still	Liberty St.....									Dumping grounds.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Aug. 10	12:37 p.m.	Tel.	Sharon St.									Rubbish.
" 10	3:12 p.m.	Tel.	Main St.	Trolley car.								Trolley car.
" 10	5:28 p.m.	574	48 Monroe St.	Frame.	Mary D. Goetti'g	J. Kelliher.	Dwelling.	$185.00	$1,400	$25.00	None	Unknown.
" 11	1:45 a.m.	Tel.	85 Westford Ave.	Frame.			Dwelling.	None				Spontaneous comb'st'n.
" 11	7:39 a.m.	Tel.	Shattuck St.									Dumping grounds.
" 13	5:00 p.m.	981	Alden St.	Frame.	J. Curto.	J. Curto.	Ice house.	Slight				Unknown.
" 14	11:15 a.m.	Tel.	39 Main St.									Unusual smoke.
" 14	1:32 p.m.	Tel.	Shattuck St.									Dumping grounds.
" 14	3:10 p.m.	Tel.	Indian Orchard.	Brush.								Brush fire.
" 14	3:15 p.m.	Tel.	Indian Orchard.									Dumping grounds.
" 14	5:15 p.m.	671	679 Sumner Ave.	Frame.	H. Granstein.	None.	Dwelling.	70.00	6,000	None		Careless with tar kettle.
" 14	7:22 p.m.	271	28 Bridge St.	Brick.	Phelps R'lty Ass.	Wyck'f & L'd Co.	Stores.	5.00	35,000	5.00	$4,700	Unknown.
" 15	12:40 p.m.	Tel.	South End Bridge	Bridge.								Unknown.
" 15	1:35 p.m.	Tel.	Middlesex St.	Brush.								Brush fire.
" 16	3:07 p.m.	Tel.	120 Oakland St.	Frame.	C. A. Marsh.	C. A. Marsh.	Milk house.	80.00	1,000			Careless smoking.
" 17	12:34 p.m.	Tel.	Liberty St.									Gasoline.
" 17	9:20 p.m.	Tel.	Wason Ave.	Brick.	Wason Car Co.	Wason Car Co.	Factory.	75.00	250,000	35.00	125,000	Sparks from forge.
" 18	3:49 a.m.	21	93 State St.									Unusual smoke.
" 18	9:48 a.m.	78	87 Greenwood St.	Brick.	Eliz. Sherman.			5.00	4,000			Rubbish in bin.
" 18	5:10 p.m.	still	57 Grover St.	Frame.	H. Cohen.	H. Cohen.	Dwelling.	31.00	6,000	70.00	1,000	Unknown.
" 19	5:33 a.m.	7	Liberty St.	Frame.	Liberty Lum. Co.	Liberty Lum. Co.	Shed.	None				Unknown.
" 19	6:51 a.m.	Tel.	381 Main St.	Brick.	Republican Co.	Republican Co.		None		None		Unknown.
" 19	10:58 a.m.	Ther.	False.		Hendee Mfg. Co.							False alarm.
" 20	12:15 p.m.	Tel.	Rear 42 Pearl St.	Frame.	Chapin Estate.		Well curb.	Slight				Incendiary.
" 20	4:30 p.m.	Tel.	356 Main St.	Brick.	L. W. Besse.	H. E. Crowther S. Levison		None				Loose belt on dynamo.
" 21	3:30 a.m.	Tel.	Off Wilbra'm Rd.	Frame.								Incendiary.
" 21	2:45 p.m.	still	226 High St.	Frame.	H. Pomstein.	H. A. Oles.	Dwelling.	5.00	9,600	15.00	400	Fumigating.
" 22	9:20 a.m.	still	Ft. of Court St.	R. R. ties.	N.Y.,N.H.&H.							Sparks from locom'tive.
" 23	12:25 a.m.	271	77 Bridge St.	Frame.	B. Winkler Heirs.	A. Bitis.	Store.			140.00	1,200	Unknown.
" 24	4:12 a.m.	9	185 Lyman St.	B'k & F'me	Gilbert & Barker.	Gilbert & Barker	Store.	584.64	None	2,028.31	None	Unknown.
" 25	3:18 a.m.	Tel.	462 W'rth'gton St.	Brick.	M. J. Aronson.	Pat'zoni & Tass'ri		225.00	12,000	150.00	1,000	Rubbish.
" 25	9:51 a.m.	413	211 Main St.	Brick.	H. E. Marsh.	H. E. Marsh.	Hotel.					Careless with gasoline.
" 30	8:30 a.m.	Tel.	100 Marengo Pk.	Frame.	Mrs. Wm. Wal'ce	Mrs. Wm. Wal'ce	Dwelling.	79.00	2,500	25.00	1,000	Fire in fireplace.
Sept. 1	12:30 p.m.	still	Indian Orchard.									Chimney fire.
" 2	5:47 p.m.	465	47 Wor'ster Ave.	Frame.	L. Warnecke.		Dwelling.	35.00	3,000			Gas explosion.
" 2	7:44 p.m.	Tel.	170 State St.	Brick.	Y. M. C. A.	F. G. Howe.	Store (Aw'g).	None		32.45	12,000	Careless smoking.
" 2	9:09 p.m.	964	64 Greene St.	Frame.	Max Miller.	H. Hopper.	Dwelling.	295.00	3,000	250.00	400	Unknown.
" 3	4:09 p.m.	Tel.	300 Dickinson St.	Frame.	S. A. Eagan.		Dwelling.					Meat in oven.
" 5	8:27 p.m.	271	28 Bridge St.	Brick.	Phelps R'lty Ass.	P. Zich Wy'k'f&L'd Co.	Stores.	1,665.00	39,533	14,223.88 186.50	32,000 5,500	Unknown.
" 6	11:07 a.m.	352	54 Wilcox St.	Brick.	O. A. LaRiviere.		Dwelling.					Back draught.
" 11	12:27 p.m.	57	15 Sherman St.	Frame.	Reed R'lty Trust.	Col'n'l Cl'n'g Co.	Factory.	100.00	3,250	36.50	1,000	Careless with gasoline.
" 11	3:16 p.m.	36	289 Water St.	Brick.	J. Aronstam.	A. Nadler.	Dwelling.	195.00	3,000	403.10	1,250	Unknown.

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DETAILED STATEMENT OF FIRES Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Sept. 12	9:51 p.m.	Tel.	False.....									False alarm.
" 13	4:03 a.m.	36	256 Water St....	Brick.....	N. E. Elmer....	Mrs. M. Luppl. / J. Warner.....	Dwelling....	$200.00	$2,500	$40.00 / 40.00	$600 / 500	Incendiary.
" 13	2:33 p.m.	Tel.	22 Warren Ave...	Frame....	P. J. Swords....	P. J. Swords.....	Dwelling....					Chimney fire.
" 13	5:00 p.m.	Tel.	94 Ft. Pl'sant Av.	Frame....	J. A. Mackey...		Dwelling....					Gas fireplace.
" 14	9:15 a.m.	Tel.	97 St. James Ave.	Frame....	David L. Harvey.	Carlos Grimes...	Dwelling....	53.00	1,000	10.00	500	Heat from stove.
" 14	9:50 a.m.	Tel.	225 W'rth'gt'n St.	Brick.....	S. B. Call.....	S. B. Call.....	Store.....			52.45	5,500	Rubbish.
" 15	8:58 a.m.	Tel.	151 Maple St....	Automobile	A. N. Mayo.....					225.43	4,000	Gasoline.
" 16	9:15 a.m.	35	Indian Orchard...	Frame....			Dwelling....					Back draught.
" 19	3:58 a.m.	Tel.	21 Hancock St...	Frame....	Mrs. C. Jeffreys..	Mrs. L. S. Oshy..	Dwelling....	4.50	3,000	26.00	300	Careless smoking.
" 19	6:17 p.m.	34	19 Central St....	Brick.....	F. X. Grobowski.	S. Hersh.....	Dwelling....	360.00	2,300	385.00	800	Unknown.
" 20	12:16 p.m.	Tel.	263 Sharon St....	Frame....	Jennie Faiman...							Broken gas pipe.
" 21	10:11 a.m.	9	R. R. Station....	Stone.....	B. & A. R. R....	B. & A. R. R....						Hot ashes.
" 25	7:38 p.m.	41	99 Ferry St.....									Chimney fire.
" 26	1:23 p.m.	84	16 Melrose St....	Frame....	E. W. Barney...	F. N. Hale.....	Dwelling....	200.00	2,500	25.00	None	Overheated stove.
" 27	7:10 p.m.	78	False.....									False alarm.
" 29	6:32 p.m.	still	State St.....	Trolley car.								Trolley car.
" 30	3:32 p.m.	Tel.	Genesee St.....	Dump.....								Dump fire.
Oct. 1	4:45 p.m.	Tel.	Pay St'n, Main St.		S. S. R. R. Co....	S. S. R. R. Co....						False alarm.
" 1	8:11 p.m.	152	328 Dwight St...	Brick.....	Mary D. Goetti'g	J. J. Cotter Co...	Store.....	308.00	25,868	1,144.26	5,000	Unknown.
" 3	4:23 p.m.	493	Fisk Ave.....	Frame....	G. C. Fisk.....	Ham. Cor. W. Co.	Dwelling....					Children.
" 5	2:45 p.m.	Tel.	Fisk Ave.....	Frame....	G. C. Fisk.....	Ham. Cor. W. Co.	Barn.....					Incendiary.
" 5	4:45 p.m.	Tel.	Genesee St.....	Dump.....								Dumping grounds.
" 6	2:48 p.m.	Tel.	55-61 Cypress St.	Brick.....	B. & A. R. R....	W. F. Cook.... / W. Soap Mf. Co.	Storehouse...			254.24 / 89.70	3,000 / 250	Unknown.
" 8	3:06 p.m.	796	827 Armory St...	Frame....	Cook Estate.....	H. W. Vincent...	Dwelling....			5.00	None	Children and matches.
" 9	1:31 p.m.	271	Wight St.....	Brick.....	Forbes & Wallace		Garage.....					Gasoline.
" 9	4:07 p.m.	771	Genesee St.....	Dump.....								Dumping grounds.
" 13	1:15 p.m.	still	Sullivan St.....	Grass.....								Grass fire.
" 13	4:48 p.m.	still	Orchard St.....	Brush.....								Brush fire.
" 14	3:04 p.m.	31	137½ State St...	Brick.....	W'th'p R'lty Co..	N. A. Messier...		49.53	63,500	175.00	None	Careless with gas.
" 15	9:48 a.m.	7	230 Sharon St....	Frame....			Dwelling....					Pan of grease.
" 15	2:07 p.m.	still	60 Taylor St.....	Automobile								Automobile.
" 16	2:05 p.m.	still	16 Bond St.....	Steps.....								Children and matches.
" 16	5:54 p.m.	421	10 Auburn St....	Frame....	J. & J. Sullivan...	Marg't Sullivan..	Dwelling....	79.00	1,500	72.50	500	Overheated stove.
" 17	5:29 a.m.	472	Birnie Ave.....	Fr'g't cars..	B. & M. R. R...					308.00	800	Unknown.
" 18	9:45 p.m.	still	State St.....	Trolley car.								Trolley car.
" 19	1:10 a.m.	still	220 Dickinson St.	Frame....	J. B. Shea.....	H. W. Smith....	Store.....	315.00	1,000	237.03	300	Unknown.
" 19	8:26 p.m.	74	False.....									False alarm.
" 19	10:55 p.m.	still	Locust St.....	Trolley car.								Trolley car.
" 20	6:18 p.m.	Ther.	Hillman St.....									False alarm.
" 20	9:11 p.m.	Tel.	Trinity Place....	Gar'ge, etc.	John Gee.....	John Gee.....		250.00	300	450.00	500	Automobile.
" 20	11:53 p.m.	Tel.	Toll Bridge.....				Bridge.....					Unknown.

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DETAILED STATEMENT OF FIRES—Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Oct. 21	7:15 a.m.	Tel.	Hotel Kimball...				Hotel.....					Grease.
" 21	9:13 p.m.	still	Indian Orchard...									Trolley car.
" 22	1:57 a.m.	78	372 Chestnut St..	Frame....	A. Wilinsky.....	L. Bartolino.....	Store.....	$461.00	$4,000	$200.00	$4,000	Unknown.
" 23	6:15 p.m.	Ther.	Hillman St.....									False alarm.
" 23	6:41 p.m.	47	Out of town.....									Out of town.
" 24	8:47 p.m.	45	Ft. of Emery St..	Freight car.	B. & M. R. R...	B. & M. R. R...						Unknown.
" 25	12:28 a.m.	271	65 Water St.....	Brick.....	Geo. J. Roos....	J. Stoeckel.....	Store.....	346.50	5,500	675.55	1,000	Unknown.
" 25	2:57 p.m.	352	Geraldine Ave....	Tar.....								Kettle of tar.
" 25	3:55 p.m.	still	Rear A'm'y St. Sc.	Brush.....								Brush fire.
" 26	2:20 p.m.	Tel.	No. Chestnut St..	Leaves....								Children.
" 28	3:58 p.m.	352	646 Main St.....	Frame....	C. Shean.....	M. Griffin.....	Dwelling....					Unknown.
" 29	12:05 p.m.	Tel.	Parkside Ave....	Brush.....								Brush fire.
" 29	12:08 p.m.	still	Carew St.....	Brush.....								Brush fire.
" 29	4:15 p.m.	still	Indian Orchard...	Brush.....								Brush fire.
" 29	5:00 p.m.	72	Prospect St.....	Grass.....								Grass fire.
" 30	11:10 a.m.	still	Prospect St.....	Leaves, etc.								Brush fire.
" 30	1:35 p.m.	Tel.	Prospect St.....	Brush.....								Brush fire.
" 30	5:24 p.m.	74	Prospect St.....	Brush.....								Brush fire.
" 30	5:51 p.m.	74	Prospect St.....	Brush.....								Brush fire.
" 30	8:45 p.m.	Tel.	Maple & Mill Sts.	Leaves....								Leaves.
" 31	10:00 a.m.	Tel.	68 Birnie Ave....	Lumber yd.	C. P. Chase.....	C. P. Chase.....						Friction.
" 31	5:10 p.m.	462	West St.....	Dump.....								Dumping grounds.
" 31	5:34 p.m.	75	North St.....									Gasoline.
" 31	6:16 p.m.	41	29 Ferry St.....	Frame....	A. Abraham.....	Anna Norman...	Dwelling....			25.00	None	Unknown.
" 31	7:35 p.m.	Tel.	Sp'g & W'r'gton..	Leaves....								Leaves.
" 31	8:06 p.m.	463	False.....									False alarm.
" 31	8:34 p.m.	743	False.....									False alarm.
" 31	8:53 p.m.	Tel.	Liberty St.....	Rubbish...								Rubbish fire.
" 31	9:02 p.m.	671	False.....									False alarm.
" 31	9:40 p.m.	Tel.	Armory St.....	Rubbish...								Rubbish fire.
" 31	9:44 p.m.	35	Union St.....	Rubbish...								Rubbish fire.
" 31	9:46 p.m.	89	False.....									False alarm.
" 31	10:01 p.m.	795	False.....									False alarm.
Nov. 1	10:22 a.m.	54	Armory St.....	Brick.....	Ham. Paint Co...	Ham. Paint Co...	Factory.....	118.00	15,000	200.00	10,000	Chemicals.
" 1	6:09 p.m.	Tel.	37 Essex St.....									Chimney fire.
" 1	7:17 p.m.	Tel.	Ingersoll Grove...	Leaves....								Leaves.
" 2	2:15 a.m.	Tel.	246 W'rth'gt'n St.	Brick.....	I. Harmon.....	A. Panago'los Co.	Store.....	None		20.00	2,000	Gas left burning.
" 2	1:17 p.m.	Tel.	Carew St.....									Forest fire.
" 3	9:13 a.m.	16	137 Summer St...	Frame....	I. Kushner.....	L. Zicki.....	Dwelling....	75.00	4,000	20.00	None	Unknown.
" 3	12:24 p.m.	Tel.	66 Clantoy St....	Leaves....								Leaves.
" 3	1:30 p.m.	still	24 Main St.....									Smoke from furnace.
" 3	4:43 p.m.	Tel.	Parkside Ave....									Forest fire.
" 4	3:00 p.m.	Tel.	Gr'w'd & Ch's'n't	Leaves....								Leaves.

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DETAILED STATEMENT OF FIRES - Continued.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Nov. 4	5:18 p.m.	Tel.	Mass'h'setts Ave.									Grass fire.
" 4	6:20 p.m.	Tel.	Mass'h'setts Ave.									Brush fire.
" 4	6:54 p.m.	5	82-86 W'r'gt'n St.	Brick.....	Spr. Homestead..	Spr. Homestead Hale & Co..... Spr. News Co..	Factory.....	$1,781.00 82.00	$25,000 25,000	$7,236.76 135.00 100.00	$40,000 5,000 25,500	Unknown.
" 5	3:20 p.m.	75	39 Ringgold St...	Frame....	D & B. Cohen..		Dwelling....					Hot ashes.
" 5	4:57 p.m.	74	Prospect St.....	Brush.....								Brush fire.
" 5	9:07 p.m.	Tel.	State St.....	Trolley car.								Trolley car.
" 5	10:20 p.m.	Tel.	111 N'th'pt'n Av.	Frame....	A. Miller.....	W. S. Norton....	Dwelling....	50.00	4,000	150.00	1,000	Careless with matches.
" 7	3:54 p.m.	462	Plainfield St.....									Grass fire.
" 7	4:55 p.m.	Tel.	Langdon St.....									Grass fire.
" 7	5:00 p.m.	743	Langdon St.....									Grass fire.
" 8	7:22 a.m.	Tel.	Armory St.....									Grass fire.
" 8	9:04 a.m.	Tel.	121 Summer St...									Back smoke.
" 8	3:00 p.m.	Tel.	Indian Orchard...									Brush fire.
" 8	7:50 p.m.	Tel.	Chicopee Road...									Brush fire.
" 8	9:05 p.m.	762	18 Butler St.....	Frame....	Alex. Wysocki...	Alex. Wysocki...	Dwelling....	523.00	2,000	275.00	500	Unknown.
" 8	9:19 p.m.	29	23 State St.....	Brick.....	Spr. Gas L'g't Co.	Spr. Gas L'g't Co.	Office.....	200.00	14,800	3,899.09	4,110	Unknown.
" 9	5:00 p.m.	Tel.	Roseland St.....									Grass fire.
" 9	5:00 p.m.	Tel.	Parkside Ave....									Brush fire.
" 9	7:03 p.m.	17	415-425 State St..	Frame....	Olivet Ch. Soc'y..	Olivet Ch. Soc.. E. C. Hazen... Rev. Hadlock..	Church.....	28,000.00	13,735	3,264.73 200.00 400.00	3,264 200 400	Defective h'ting pl'nt.
			409 State St....	Brick.....	Louis C. Scheuing		Dwelling....	35.00	2,800			Exposure.
" 9	7:37 p.m.	17	413 State St...	Brick.....	S. P. Seymour...	S. P. Seymour...	Dwelling....	447.12	10,000	50.00	3,000	Exposure.
			429 State St...	Brick.....	L. B. Zimmerman	L. B. Zimmerman	Dwelling....	150.00	4,500	80.00	3,000	Exposure.
" 11	2:34 a.m.	492	300 Birnie Ave...	Frame....	N. E. Russell....	N. E. Russell....	Factory.....	285.00	13,000	110.76	12,000	Sparks from locom'tive.
" 12	4:58 p.m.	Tel.	Prospect St.....									Brush fire.
" 12	10:55 p.m.	Tel.	13 Isabelle St....	Frame....	S. Stevens.....	S. Stevens.... L. Phedro.....	Dwelling....	2,325.00	3,000	750.00 450.00	1,000 500	Careless with m'ches.
			15 Isabelle St....	Frame....	Wm. Leard.....	Wm. Leard.....	Dwelling....	2,000.00	2,000	775.00	1,000	Exposure.
" 13	8:11 a.m.	Tel.	390-396 Main St..	Brick.....	Forbes & Wallace	Forbes & Wallace	Store.....					Careless smoking.
" 14	10:10 a.m.	77	250 Liberty St...	Brick.....			Ap't house...					Needless alarm.
" 15	6:56 a.m.	still	456 W'r'gton St...	Brick.....								Defective chimney.
" 15	7:46 p.m.	17	475 State St.....	Brick.....	Mrs. E. Gunn...	Mrs. M. A. Flint.	Dwelling....	70.00	8,000	20.00	None	Unknown.
" 16	4:30 p.m.	Tel.	19 Orlando St....	Frame....	S. M. King.....	S. M. King.....	Dwelling....					Hot ashes.
" 17	12:06 a.m.	Tel.	Ch vale & Spr'l'd.									Rubbish fire.
" 17	7:38 p.m.	41	196 Main St.....	Frame....	C. V. Ryan.....	J. H. Kopelman..	Store.....	355.00	12,000	450.75	1,500	Careless with matches.
" 19	5:03 p.m.	Tel.	Armory St.....									Forest fire.
" 19	9:15 p.m.	614	22 Chase Ave....	Frame....	W. N. Winans...	W. N. Winans...	Dwelling....	991.00	3,500	938.50	2,500	Hot ashes.
" 20	9:13 a.m.	Tel.	7½ Tyler St.....									Chimney fire.
" 20	11:45 p.m.	Tel.	219 Main St.....	Brick.....	Henry Marsh....	J. L. Fegan.....	Hotel.....					Careless smoking.
" 21	4:47 p.m.	431	60 Church St....	Frame....	J. Fisher.....	I. Tillman.....	Dwelling....	180.00	4,000	200.00	500	Unknown.
" 22	12:05 p.m.	still	Indian Orchard...									Chimney fire.

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DETAILED STATEMENT OF FIRES—Concluded.

Date.	Time.	Box.	Location.	Description of Building.	Owner.	Occupant.	How Occupied.	Buildings.		Contents.		Cause and Circumstances of Fire.
								Loss on	Ins. on	Loss on	Ins. on	
Nov. 22	12:34 p.m.	Tel.	407 Chestnut St..									Chimney fire.
" 22	4:28 p.m.	Ther.	193 Lyman St....									False alarm.
" 22	11:02 p.m.	Tel.	Off Allen St.....									Rubbish fire.
" 23	12:15 p.m.	still	Indian Orchard...									Grass fire.
" 24	7:30 a.m.	Tel.	18 Willow St.....			C. A. Allbe.....						Careless with candle.
" 24	5:15 p.m.	673	187 Johnson St...	Frame....	Geo. T. Ware....	H. M. Elder.....	Dwelling....			$35.00	None	Oil heater.
" 25	12:50 p.m.	Tel.	31 Stockbridge St.	Brick.....	Dexter & W'bster	H. W. Gut'r'n Co.	Factory.....	$18.00	$11,600			Defective furnace.
" 25	2:00 p.m.	Tel.	Off Clantoy St...									Grass fire.
" 25	5:20 p.m.	673	98 Alderman St..	Frame....	F. B. Bailey.....	F. B. Bailey.....	Dwelling....					Children and matches.
" 26	12:30 p.m.	still	Liberty St.....									Grass fire.
" 27	1:20 p.m.	Tel.	Stafford St.....									Grass fire.
" 27	8:55 p.m.	14	511 W'r'gton St...	Frame....	I. Harmon.....	J. Albinese.....	Dw. & stores.	300.00	3,000	100.00	$4,000	Incendiary.
" 28	9:40 a.m.	Tel.	Locust Hill.....	Frame....	Chris. Gagnier...	Chris. Gagnier...	Dwelling....	235.00	7,000	55.50	2,000	Child and match.
" 29	5:17 p.m.	Tel.	Off Allen St.....									Grass fire.
" 29	9:37 p.m.	still	61 Main St.....	Brick.....	A. P. Hare.....	D. Patronsky....	Store.....	12.00	6,000	78.75	2,100	Unknown.
" 30	6:25 p.m.	Tel.	582½ Main St...	Brick.....	C. E. Alderman..	O. Cardinal.....	Dwelling....					Defective flue.

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NUMBER OF ALARM

EACH COMPANY ANSWERED.

Engine Co. No. 1	146
Engine Co. No. 2	184
Engine Co. No. 3	46
Engine Co. No. 4	91
Engine Co. No. 5	50
Engine Co. No. 6	78
Engine Co. No. 8	60
Engine Co. No. 9	68
Hose Co. No. 7	186
Hose Co. No. 10	127
Hose Co. No. 11	39
Hose Co. No. 12	107
Truck Co. No. 1	119
Truck Co. No. 3	39
Truck Co. No. 6	72
Truck Co. No. 8	72
Truck Co. No. 10	146
Chemical Co. A	48
Squad A	300
Squad B	325

CAUSES OF FIRES AND ALARMS.

Accident with film	1
Acid	1
Automobile	3
Back draft	5
Back smoke	1
Bonfire	4
Broken gas pipe	1

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Broken lamp	3
Broken gas fixture	2
Broken sprinkler pipe	2
Broken water front	1
Broken water pipe	1
Brush, forest, grass, leaves	161
Burning fat	5
Burning grease	5
Careless with candle	4
Careless with fire	1
Careless with gas	1
Careless with gasoline	5
Careless with lantern	1
Careless with matches	8
Careless with tar kettle	1
Careless burning of rubbish	1
Careless smoking	24
Careless workman	1
Candle and curtain	1
Chemicals	2
Christmas tree	1
Children playing with fire	4
Children and matches	16
Chimney fires	41
Cleaning with gasoline	1
Clothing near stove	2
Curtain and gas fixture	4
Defective boiler	1
Defective chimney	7
Defective flue	1
Defective furnace	1
Defective gas fixture	2
Defective gas meter	1
Defective heating plant	1
Defective smoke pipe	1
Defective thermostat	4
Drying plaster	3
Dumping grounds	47
Electric flatiron	1
Electric wires	4
Escaping steam	2

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False alarms	28
Fireworks	7
Fire in fireplace	1
Freight car	1
Friction	1
Frozen sprinkler	2
Fumes from radiator	1
Fumigating	2
Gas explosion	1
Gas fireplace	1
Gas left burning	2
Gasoline	12
Gasoline torch	1
Heat from furnace	2
Heat from gas lamp	2
Heat from kilns	2
Heat from stove	2
Hollow tree	1
Hot ashes	9
Hot box	1
Hot cinders	2
Incendiary	8
Incubator	1
Insulation	1
Kettle of tar	1
Lamp and curtain	1
Leaky gas pipe	1
Lightning	7
Loose belt on dynamo	1
Matches in closet	1
Match in wastebasket	1
Meat on stove	2
Needless alarms	3
Oil heater	2
Oil lamp	1
Out of city	3
Overheated boiler	1
Overheated furnace	2
Overheated stove	2
Overheated stovepipe	1
Rekindling of former fire	4

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Rubbish	36
Rubbish chute	1
Shavings	1
Short circuit	1
Smoke from furnace	2
Snap match	1
Sparks from chimney	6
Sparks from forge	2
Sparks from locomotive	6
Spark from match	1
Spontaneous combustion	7
Supposed incendiary	2
Thawing out frost	1
Thawing water pipe	5
Trolley car	19
Unknown	117
Unusual smoke	4
Waste chute	1
Total	729

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COMPARATIVE STATEMENT

OF LOSSES BY FIRE AND ALARMS OF FIRE SINCE 1870.

From	Dec.	1st,	1870,	to	Dec.	1st,	1871.....	$199,317.00	21
"	"	"	1871,	"	"	"	1872.....	106,425.00	22
"	"	"	1872,	"	"	"	1873.....	191,107.00	48
"	"	"	1873,	"	"	"	1874.....	285,822.02	38
"	"	"	1874,	"	"	"	1875.....	476,961.45	57
"	"	"	1875,	"	"	"	1876.....	120,824.00	53
"	"	"	1876,	"	"	"	1877.....	74,071.00	32
"	"	"	1877,	"	"	"	1878.....	49,552.00	39
"	"	"	1878,	"	"	"	1879.....	36,706.70	33
"	"	"	1879,	"	"	"	1880.....	8,661.35	27
"	"	"	1880,	"	"	"	1881.....	92,352.82	61
"	"	"	1881,	"	"	"	1882.....	60,232.06	73
"	"	"	1882,	"	"	"	1883.....	34,969.11	46
"	"	"	1883,	"	"	"	1884.....	30,755.34	54
"	"	"	1884,	"	"	"	1885.....	39,241.91	48
"	"	"	1885,	"	"	"	1886.....	33,584.00	61
"	"	"	1886,	"	"	"	1887.....	64,930.29	86
"	"	"	1887,	"	"	"	1888.....	177,577.19	79
"	"	"	1888,	"	"	"	1889.....	52,085.19	79
"	"	"	1889,	"	"	"	1890.....	33,864.99	92
"	"	"	1890,	"	"	"	1891.....	201,126.00	141
"	"	"	1891,	"	"	"	1892.....	125,243.36	140
"	"	"	1892,	"	"	"	1893.....	397,531.03	147
"	"	"	1893,	"	"	"	1894.....	57,732.41	125
"	"	"	1894,	"	"	"	1895.....	43,311.74	128
"	"	"	1895,	"	"	"	1896.....	57,206.60	141
"	"	"	1896,	"	"	"	1897.....	55,460.89	157
"	"	"	1897,	"	"	"	1898.....	235,981.79	171
"	"	"	1898,	"	"	"	1899.....	94,694.02	213
"	"	"	1899,	"	"	"	1900.....	62,157.70	222
"	"	"	1900,	"	"	"	1901.....	96,409.25	236
"	"	"	1901,	"	"	"	1902.....	149,931.33	248
"	"	"	1902,	"	"	"	1903.....	30,316.69	311
"	"	"	1903,	"	"	"	1904.....	68,332.86	385
"	"	"	1904,	"	"	"	1905.....	208,451.58	424
"	"	"	1905,	"	"	"	1906.....	105,771.28	403
"	"	"	1906,	"	"	"	1907.....	535,549.74	498
"	"	"	1907,	"	"	"	1908.....	88,690.38	530
"	"	"	1908,	"	"	"	1909.....	75,701.81	675
"	"	"	1909,	"	"	"	1910.....	133,329.47	710
"	"	"	1910,	"	"	"	1911.....	397,714.08	729

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FIRE ALARM TELEGRAPH.

Location of Signal Boxes.

Keys on all Boxes.

Box 2.—Main, opposite Taylor:
Box 3.—Main, opposite Lyman.
Box 4.—Taylor, opposite Power avenue.
Box 5.—Main and Worthington.
Box 6.—Main and Bridge.
Box 7.—Liberty and Chestnut.
Box 8.—Taylor and Dwight.
Box 9.—Lyman and Chestnut.
Box 12.—Union and School.
Box 13.—State and Spring.
Box 14.—Spring and Worthington.
Box 142.—Pearl and Byers.
Box 15.—Salem and Mattoon.
Box 152.—Chestnut, opposite Bridge.
Box 16.—Worthington and Kibbe avenue.
Box 17.—State and Walnut.
Box 18.—State and Oak.
Box 19.—Union and Mulberry.
Box 21.—State and Main.
Box 23.—Sanford and Market.
Box 231.—Main and Elm.
Box 24.—Main and Pynchon.
Box 25.—Dwight and Harrison avenue.
Box 26.—Main, opposite Hillman.
Box 27.—Water and Fort.
Box 271.—Water and Bridge.
Box 28.—Water and Vernon.
Box 29.—Water and Elm.
Box 31.—State and Chestnut.
Box 32.—Maple and Central.
Box 321.—Maple and Mulberry.
Box 324.—Maple, opposite Park.
Box 34.—Main, opposite Central.

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Box 341.—Main and Norwood.
Box 342.—Main and York.
Box 35.—Main and Howard.
Box 351.—Morris and Dale.
Box 352.—Main and Wilcox.
Box 36.—Water and Howard.
Box 37.—Water and Margaret.
Box 38.—Water and Lombard.
Box 39.—Broad and Hanover.
Box 41.—Main and Cypress.
Box 42.—Main and Emery.
Box 421.—Main and Holyoke.
Box 43.—Main and Sargeant.
Box 431.—Main, opposite Church.
Box 45.—Fulton and Emery.
Box 46.—Fulton and Seventh.
Box 461.—Fulton and Plymouth.
Box 462.—Plainfield, opposite Washburn.
Box 463.—Plainfield, near Clayton.
Box 465.—Old Plainfield street schoolhouse.
Box 47.—Main, opposite Osgood.
Box 471.—Main, near arch.
Box 472.—Birnie avenue and Huntington.
Box 473.—Birnie avenue and Medford.
Box 475.—Birnie avenue and Douglas.
Box 476.—Birnie avenue and Walter.
Box 48.—Hooker street engine house.
Box 49.—Main and Wason avenue.
Box 491.—Main and Alfred.
Box 493.—Fisk and Demond avenues.
Box 51.—Bay, near Sherman.
Box 512.—Bay, opposite Marion.
Box 513.—Bay, near Westminster.
Box 52.—St. James avenue, opposite Thompson park.
Box 53.—St. James avenue and Florida.
Box 54.—Worthington and Armory.
Box 56.—Worthington and Thompson.
Box 561.—Worthington and Bowdoin.
Box 57.—Winchester park.
Box 573.—State and Pleasant.

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Box 574.—State, opposite Hancock.
Box 58.—Princeton and Amherst.
Box 59.—St. James avenue, near Dorchester.
Box 61.—Mill and Locust.
Box 612.—South and Boulevard.
Box 613.—Fort Pleasant avenue and Park avenue.
Box 614.—Fort Pleasant avenue and Riverview terrace.
Box 62.—Belmont avenue, opposite Keith.
Box 621.—Belmont avenue, near Garfield.
Box 623.—Belmont avenue and Beaumont.
Box 624.—Oakland and Orange.
Box 63.—Sumner avenue and Long Hill.
Box 631.—Long Hill street and Cherryvale avenue.
Box 64.—Sumner avenue and Randolph.
Box 641.—Sumner avenue, opposite Continental avenue.
Box 642.—Belmont avenue and Walden.
Box 643.—Belmont avenue and Lyndale.
Box 645.—White and Belmont.
Box 65.—Garfield and Churchill.
Box 67.—Belmont and Sumner avenues.
Box 671.—White and Sumner avenue.
Box 672.—White and Scott.
Box 673.—Alderman and Ventura.
Box 674.—Sumner avenue and Lester.
Box 68.—White street chapel.
Box 681.—Allen and Orange.
Box 682.—Allen, east of N. E. R. R. tracks.
Box 69.—Allen and White.
Box 71.—Chestnut and Springfield.
Box 712.—Springfield, north of Chestnut.
Box 713.—Hamburg and Farnsworth.
Box 714.—Atwater Glen.
Box 72.—Chestnut and Alexander.
Box 73.—North and Jefferson avenue.
Box 74.—Chestnut and Prospect.
Box 741.—Carew and Armory.
Box 742.—Liberty and Sherman road.
Box 743.—Liberty and Woodmont.
Box 75.—North and Ringgold.
Box 76.—Chestnut and Carew.

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Box 771.—Liberty and Genesee.
Box 78.—Chestnut, opposite Greenwood.
Box 79.—Liberty and Cass.
Box 791.—Liberty, opposite Heywood avenue.
Box 794.—Liberty and Armory.
Box 795.—Liberty and Grover.
Box 796.—Springfield and Armory.
Box 81.—Walnut and Oak.
Box 82.—Walnut and Cedar.
Box 83.—Walnut and Hancock.
Box 84.—Lincoln Hall.
Box 85.—Central and Spruce.
Box 86.—Central and Pine.
Box 87.—Maple and Pine.
Box 89.—Maple and Mill.
Box 91.—Cambridge and Burr.
Box 92.—Wilbraham road and Homer.
Box 921.—State, near International College.
Box 923.—Wilbraham road and Colonial avenue.
Box 93.—State and Reed.
Box 934.—State and Benton.
Box 94.—Wilbraham road and Rutland avenue.
Box 95.—Wilbraham avenue and Beverly.
Box 96.—Hancock and Quincy.
Box 961.—Hancock and King.
Box 962.—Stebbins and Union.
Box 964.—Lebanon and Prince.
Box 97.—Pendleton and Eastern avenues.
Box 971.—Eastern avenue and Union.
Box 98.—Alden and Eastern avenue.
Box 981.—Alden and Hickory.

PRIVATE BOXES.

To be Pulled only for Fire on Premises.

Box 123.—Smith & Wesson.
Box 125.—Fisk & Walker Mfg. Co.
Box 135.—United States Armory.
Box 182.—National Papeterie Co.
Box 212.—Court Square Hotel.

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Box 213.—Tapley building.
Box 241.—Gilmore Opera House.
Box 273. } —Myrick building.
Box 275. }
Box 274.—Springfield Brewing Co.
Box 291.—Springfield Gas Co.
Box 312.—City Library.
Box 362.—Newell Bros. Mfg. Co.
Box 364.—Electric Light Co.
Box 382.—Street Railway Power House.
Box 412.—U. S. Envelope Co.
Box 413.—Cooley Hotel.
Box 423.—Street Railway Office.
Box 481.—Birnie Paper Co.
Box 482.—Holyoke Card and Paper Co.
Box 483.—Wason Mfg. Co.
Box 485.—Stebbins Mfg. Co.
Box 492.—N. E. Russell's shop.
Box 562.—Standard Oil Co.
Box 572.—Potter's Planing Mill.
Box 732.—Springfield Hospital.
Box 761.—Mercy Hospital.
Box 762.—Sacred Heart Church.
Box 77.—West Box Shop.
Box 792.—Cheney Bigelow Wire Works.
Box 793.—Taber Prang Art Co.
Box 841.—Water Shops, U. S. A.
Box 931.—City Almshouse.
Box 932.—Highland Brewing Co.
Second alarm—Repeat the box.
Third alarm—Three blows and repeat, followed by one blow (3, 3, 1).
General alarm—Ten (10) blows.
Militia call—Fifteen (15) blows.
Dismissal signal—Two (2) blows.

School Signal—Two blows five times, 8.15 a.m., no morning session.
Two blows five times, 11.45 a. m., no afternoon session.
Two blows five times, 7.30 a. m., no morning session high school.
Two blows five times, 12.15 p. m., no afternoon session high school.

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ANNUAL REPORT OF

THE FIRE ALARM TELEGRAPH.

To the Honorable Board of Fire Commissioners.

GENTLEMEN:—We have received 240 signals over the system during the year. Six new fire alarm boxes have been installed. All the city wires have been placed underground in the section prescribed the first of the year. On July 31st we cut over from our automatic system to the new central office equipment, this being done without any interruption to the service. The old system comprising 10 circuits was divided later into 26, giving us at the present time one of the most modern systems in the country. The rapid growth in certain sections of the city will necessitate the installation of many new boxes. At least 12 should be added this year.

The inspection of electric wires has been maintained by this department, the records of which have been filed in our office. I would renew my recommendation of last year that keyless door attachments be placed on such fire alarm boxes as are without them. This would require an expenditure of about $350.

Respectfully submitted,

S. L. WHEELER,

Superintendent.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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POLICE DEPARTMENT.

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REPORT OF

THE POLICE COMMISSION.

To His Honor, the Mayor, and the City Council of the City of Springfield:—

The Police Commission herewith submits to your Honorable Body the Annual Report of the Police Department for the year ending November 30, 1911.

At the beginning of the current year the Police Commission was composed of three members: Fred O. Clapp, Chairman; Wm. M. Lester, and John W. Kennely.

On January 3, Wm. J. Quilty was reappointed Chief of Police, Charles M. Wright, Deputy Chief of Police, and Raymond A. Bidwell, Prosecuting Attorney.

In April the Mayor appointed Edward H. Cullen as member of the Police Commission to succeed Wm. M. Lester, whose term expired May 1. We wish to express to your Honorable Body the appreciation of the excellent service rendered by Mr. Lester while he was a member of the Police Commission. He gave the department a great deal of his time and thought and was untiring in his efforts to improve the discipline and efficiency of the department.

During the year the department established headquarters on Court and Water streets, in the new building provided by the committee appointed by the City Government. The quarters are adequate and a credit to the city. After occupying the place it was found necessary to increase the janitor service and the Commissioners have done so by selecting Homer B. Smith from the Civil Service list and appointing him janitor. They also have engaged the services of Mrs. Katherine Sheehan to do

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the necessary cleaning in the women's lock-up, detention rooms, and administration offices and the laundering of the department, the idea being to keep the women prisoners wholly in the custody and care of their own sex.

During the year three members of the department voluntarily resigned to go into other business. These were John C. Woolley, John Hendrickson, and Walter J. Ayers. The discipline of the department during the year has been excellent. Four members of the department were brought before the Commission on charges. In all these cases the charges were sustained and proper discipline was applied.

At the last State election the voters accepted Chapter 468, of the Acts of 1911, placing the Chief of Police in the classified Civil Service. This would seem to obviate the necessity of appointing the superior officers annually in the future, as they are all now under the Civil Service rules.

The Detective Bureau has rendered most efficient service during the year and the work of that bureau is increasing constantly. The Ordinance ought to be so drawn that additional inspectors could be appointed whenever in the judgment of the Police Commission the increase of the duties of the Detective Bureau would warrant it.

During the year the department sold two motorcycles which it had, experience having proved that they were not the best means of locomotion for the officers.

The bicycle squad is still in service and should be reinforced by a Mounted Squad of Police.

The department is at present equipped with two automobile patrols, one of which has outlived its usefulness and has paid for itself over and over again. The Model G automobile, while a good car, should be equipped with water-cooled engines. There should not only be bought a new up-to-date automobile patrol car, but also another car, either a runabout or touring car for the Chief, not that this car would be used by the Chief con-

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stantly, but so that it would be available when he did want to use it and in the meantime it could be used by the Inspectors when they had a task on hand that required quick action. There are many reasons why this car should be designated as the Chief's car, the principal one being that the Chief would always be in a position to see that it was used for purely police work. In this connection, attention is called to the fact that the charter demands that the Chief of Police shall visit all parts of the city from time to time and note conditions.

The members of the department are still drilled under the command of Major David A. Turner as in the past and the improvement in their marching and movement is very noticeable.

RECOMMENDATIONS.

The department to-day is in great need of an increase in the number of the night and day watchmen and we recommend to your Honorable Body that authority be given the Police Commission to appoint fifteen men at this time. It is also necessary that you should so frame your Ordinance or order, that the department be increased annually by so many men,—this to provide for immediate wants and to take care of the future growth of the city in acreage and population. This need is most urgent and we say without fear of contradiction that to-day fifteen men could be added to each squad in this department and there would still be left localities that would need better protection.

Alluding again to the Mounted Squad, we would recommend to your Honorable Body that sufficient money be appropriated to establish this branch of the service. It is a form of service that is in use now in many cities and is being constantly adopted by other police departments throughout the country.

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POLICE COURT ROOM.

The Police Court Room in the building is very nicely equipped with desks and other furniture but the acoustics are bad, also the ventilation needs improving. The ventilating fan which is installed makes so much noise that it cannot be used. It would seem as though one way to overcome the defect in the acoustics would be to raise the skylight in the ceiling about two feet and put in window panels in the sides. This would probably help to do away with the echo which is there constantly, as well as improve the ventilation.

Another thing that we would call your attention to is the necessity for establishing lines for a passageway from Court street to the Police building entrance, so as to prevent other departments from encroaching upon it. The main entrance to the Police building faces Court street and every day many people come to the Police building to do business, and they ought to have a clean and safe passageway to the door.

During the year one new signal box was added and in the coming year we ought to have three more.

During the year the Patrolmen's pay for the first and second year was increased to $2.50 and $2.75 respectively and we believe that the Reserve Officers ought to be paid $2.50 per day when on duty.

We respectfully request your Honorable Body to petition the Legislature for an Act establishing the office of Prosecuting Attorney for the department.

With the growth of the department and the large number of men employed, the necessity of a Police Surgeon is almost imperative and we earnestly recommend the creation of this office.

The tower of the Municipal Group, on account of its height, suggests its importance to the public for signaling purposes. We recommend that signal lights be installed in the tower to be

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used in cases of necessity and emergency, making it possible for the department to get almost in immediate touch with every man on duty.

The report of the Chief, covering in detail the membership, appropriations and receipts, expenditures, arrests, convictions, and penalties imposed and all other duties performed by the department, as well as the amount of property in control of the department, is attached hereto and made a part of this report.

Respectfully submitted,

FRED O. CLAPP, *Chairman,*
JOHN W. KENNELY,
E. H. CULLEN,
Board of Police Commissioners.

BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 29, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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ANNUAL REPORT

OF

CHIEF OF POLICE.

SPRINGFIELD, MASS., DECEMBER 1, 1911.

To the Board of Police Commissioners of the City of Springfield.

GENTLEMEN: I herewith submit the annual report of the Chief of Police for the year ending November 30, 1911.

ROSTER OF THE DEPARTMENT.

BOARD OF POLICE COMMISSIONERS.

FRED O. CLAPP, *Chairman,*

JOHN W. KENNELY, EDWARD H. CULLEN,

CONSTANTIN PANTASIDES, *Clerk.*

OFFICERS OF THE DEPARTMENT.

No.	Name.		Date of Appointment.	Nativity.	Age.
1.	Wm. J. Quilty,	Chief,	March 7, 1887,	United States,	56
2.	Chas. M. Wright,	Dep. Chief,	March 3, 1869,	United States,	66
3.	John J. O'Malley,	Captain,	January 26, 1874,	Ireland,	60
4.	Henry M. Perkins,	Captain,	May 14, 1883,	United States,	59
5.	David J. Manning,	Lieutenant,	January 12, 1879,	United States,	60
6.	Chas. A. Wade,	Lieutenant,	April 8, 1889,	United States,	51
7.	John H. Boyle,	Ch. Inspector,	June 6, 1887,	United States,	49
8.	John St. Ledger,	Inspector,	July 12, 1888,	Ireland,	52
9.	Martin P. Costello,	Inspector,	March 28, 1898,	United States,	41
10.	George H. Norris,	Inspector,	January 18, 1875,	United States,	61
11.	James T. Raiche,	Inspector,	October 17, 1901,	United States,	40
12.	John Hall,	Sergeant,	November 12, 1883,	Ireland,	54
13.	E. F. Goodwin,	Sergeant,	October 25, 1886,	United States,	64
14.	P. J. McCallin,	Sergeant,	January 20, 1879,	Ireland,	63
15.	E. A. Littlefield,	Sergeant,	June 30, 1896,	United States,	43
16.	P. H. McDonald,	Sergeant,	June 30, 1896,	United States,	52
17.	James C. Burke,	Sergeant,	June 7, 1892,	United States,	44
18.	M. J. O'Brien,	Sergeant,	February 15, 1897,	United States,	42

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NIGHT AND DAY WATCHMEN.

No.	Name.	Date of Appointment.	Nativity.	Age.
1.	George L. DeForest,	March 3, 1884,	United States,	57
2.	Paul J. O'Brien,	May 23, 1884,	United States,	55
3.	Ernest Rosenberg,	May 4, 1885,	Germany,	66
4.	John H. Dunleavy,	May 18, 1885,	United States,	55
5.	Thomas Ranney,	June 17, 1885,	United States,	63
6.	James W. Murtagh,	October 26, 1886,	United States,	50
7.	Calvin W. Jennings,	February 4, 1890,	United States,	70
8.	David A. Newcomb,	June 16, 1891,	United States,	66
9.	Michael C. Quinlivan,	September 14, 1891,	Ireland,	49
10.	Michael R. Donovan,	May 23, 1892,	Ireland,	73
11.	Chas. H. O'Connell,	May 23, 1892,	United States,	44
12.	Ward E. Maranville,	May 23, 1892,	United States,	52
13.	Edgar A. Kirk,	January 22, 1894,	United States,	67
14.	Frederick L. Thayer,	September 4, 1894,	United States,	48
15.	Albert H. Shaw,	March 11, 1895,	England,	58
16.	James J. Donovan,	June 30, 1896,	Ireland,	46
17.	Edward P. Tilton,	June 30, 1896,	United States,	49
18.	James M. Daly,	November 23, 1896,	United States,	50
19.	James H. Rogers,	February 1, 1897,	United States,	67
20.	John A. Swift,	February 15, 1897,	Ireland,	45
21.	Michael F. Egan,	March 22, 1897,	Ireland,	51
22.	Patrick O'Keefe,	March 22, 1897,	Ireland,	48
23.	Andrew J. Melaney,	March 20, 1899,	United States,	39
24.	Albert E. Ward,	March 20, 1899,	United States,	38
25.	Simon J. Connery,	September 26, 1899,	United States,	49
26.	Ovila L. Huot,	July 13, 1900,	Canada,	43
27.	Michael Kennedy,	July 13, 1900,	Ireland,	39
28.	William J. Grady,	July 13, 1900,	United States,	51
29.	Daniel J. Twohig,	July 13, 1900,	United States,	38
30.	Timothy J. Hallahan,	October 17, 1901,	Ireland,	42
31.	Charles W. Geary,	October 17, 1901,	United States,	42
32.	John F. Bacon,	October 17, 1901,	United States,	38
33.	John L. Maloney,	October 28, 1901,	United States,	35
34.	Ernest P. Marble,	December 30, 1902,	United States,	33
35.	James F. Dagnan,	January 2, 1903,	United States,	37
36.	Alexander Gray,	January 20, 1903,	Scotland,	42
37.	Edwin C. Holbrook,	September 1, 1903,	United States,	44
38.	Chas. A. Hatfield,	February 14, 1905,	United States,	43
39.	Patrick Lynch,	June 5, 1905,	Ireland,	44
40.	John P. Sullivan,	October 18, 1905,	United States,	38
41.	Patrick J. O'Connor,	January 11, 1906,	Ireland,	35
42.	Thomas Maloney,	January 11, 1906,	Ireland,	35
43.	Melvin H. Ransom,	January 11, 1906,	United States,	34
44.	Frederick J. Runnells,	January 11, 1906,	United States,	33
45.	Marshall A. Belmer,	January 11, 1906,	United States,	32
46.	William J. Hurley,	April 3, 1906,	Ireland,	38
47.	Llewellyn D. Carey,	January 2, 1907,	United States,	39
48.	Wm. F. Goldrick,	January 22, 1907,	Ireland,	39
49.	Michael F. Sullivan,	January 22, 1907,	United States,	38
50.	Joseph D. Powers,	January 22, 1907,	United States,	35
51.	Fred W. Garipay,	January 22, 1907,	United States,	38

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No.	Name.	Date of Appointment.	Nativity.	Age.
52.	Edward Carey,	June 27, 1907,	Ireland,	39
53.	Everett B. Bogert,	June 27, 1907,	United States,	38
54.	Neal Ferry,	June 27, 1907,	Ireland,	43
55.	Wm. McDougall,	January 14, 1908,	England,	43
56.	Horace G. Clark,	January 14, 1908,	United States,	35
57.	Aime L. J. Letendre,	January 14, 1908,	Canada,	32
58.	Frederick P. Smith,	January 14, 1908,	United States,	33
59.	George F. Russell,	January 14, 1908,	United States,	34
60.	Joseph A. Murphy,	January 14, 1908,	United States,	38
61.	James A. Dowling,	January 14, 1908,	United States,	43
62.	James H. O'Brien,	January 14, 1908,	United States,	42
63.	John McNeil,	January 14, 1908,	United States,	28
64.	Durham N. Pepin,	January 14, 1908,	United States,	32
65.	Thomas B. Drinan,	January 14, 1908,	United States,	36
66.	Clarence E. Bradway,	January 14, 1908,	United States,	33
67.	James J. Collins,	January 14, 1908,	Ireland,	31
68.	Walter L. Henderson,	January 14, 1908,	Canada,	35
69.	Bernard J. F. Bergren,	January 14, 1908,	United States,	30
70.	Edward J. Rathbun,	January 14, 1908,	United States,	28
71.	Peter H. Walsh,	January 14, 1908,	Ireland,	35
72.	John F. Donoghue,	October 6, 1908,	United States,	30
73.	William S. Bates,	October 6, 1908,	United States,	36
74.	Daniel F. McCarthy,	July 6, 1909,	United States,	36
75.	John LaFond,	July 6, 1909,	United States,	35
76.	Patrick J. Fenton,	July 6, 1909,	Ireland,	44
77.	James T. Tucker,	July 6, 1909,	United States,	27
78.	Frederick J. Sevigne,	August 5, 1909,	United States,	35
79.	Alfred H. Penfield,	December 18, 1909,	United States,	32
80.	Robert Rennison,	June 7, 1910,	United States,	26
81.	John A. Hamberg,	August 16, 1910,	Sweden,	34
82.	Myron H. Bullard,	September 12, 1910,	United States,	31
83.	John A. Driscoll,	November 1, 1910,	United States,	39
84.	Harley H. Blodgett,	February 7, 1911,	United States,	36
85.	Charles Martens,	April 8, 1911,	United States,	28
86.	Perley J. Hewey,	June 7, 1911,	United States,	33
87.	Edward G. Quinlivan,	June 7, 1911,	United States,	44
88.	William J. Hogan,	June 7, 1911,	United States,	31
89.	Herbert A. Clark,	June 7, 1911,	United States,	31
90.	John F. Carlton,	June 7, 1911,	United States,	28
91.	Ernest C. Smith,	August 22, 1911,	United States,	32
92.	James F. Mullins,	September 27, 1911,	United States,	31

RESERVE FORCE.

No.	Name.	Date of Appointment.	Nativity.	Age.
93.	George E. Lynch,	January 4, 1910,	Ireland,	35
94.	Michael Flannery,	January 4, 1910,	Ireland,	35
95.	Howard F. Tourtellotte,	January 4, 1910,	United States,	25
96.	John G. Flynn,	January 4, 1910	United States,	26
97.	Edward J. Slattery,	July 8, 1909,	United States,	40
98.	Michael J. Curley,	May 20, 1910,	Ireland,	31
99.	Arthur H. Carrigg,	July 5, 1910,	United States,	29
100.	Jeremiah B. O'Leary,	September 12, 1910,	United States,	25
101.	Charles Hanlon,	September 21, 1910,	United States,	26

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No.	Name.	Date of Appointment.	Nativity.	Age.
102.	John Hayes,	November 1, 1910,	Ireland,	37
103.	Patrick J. Keane,	February 11, 1911,	Ireland	36
104.	Thomas F. Connery,	February 11, 1911,	United States,	31
105.	Louis H. Pilon,	July 6, 1911,	United States,	27
106.	Frank W. Quilty,	July 6, 1911,	United States,	23
107.	Eugene F. Kelleher,	July 6, 1911,	United States,	23
108.	James E. Martin,	July 6, 1911,	United States,	28
109.	Charles O'Connor,	July 6, 1911,	Ireland,	31
110.	James P. Gray,	July 6, 1911,	United States,	28
111.	Thomas Kavanaugh,	July 6, 1911,	Ireland,	28
112.	Mathew P. Ryan,	July 6, 1911,	United States,	36
113.	William F. Lonergan,	September 6, 1911,	United States,	22
114.	Raymond F. Connelly,	October 4, 1911,	United States,	22
	Chas. A. Haynes, Insp. Ret.	July 7, 1909,	United States,	63
	Wm. H. Sibley, Pat. Ret.	September 12, 1910,	United States,	59

Constantin Pantasides, Clerk and Bertillon Operator.
Miss Mary I. Morgan, Assistant Clerk.
Montague R. Marsh, Chauffeur.
Harry R. Button, Chauffeur.
Ellsworth Myers, Chauffeur.
Mrs. Maria E. Holley, Matron.
Mrs. D. E. Flanagan, Matron.
Miss Grace M. Conway, Tel. Operator.
Miss Esther W. Burlingham, Tel. Operator.
Samuel L. Wheeler, Electrician.
Clayton J. Lewis, Janitor.
Homer B. Smith, Janitor.
Mrs. Katherine Sheehan, Janitress.

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APPROPRIATIONS, TRANSFERS, RECEIPTS, AND EXPENDITURES.

Appropriation,	$143,000 00	
Transfer,	500 00	
Receipts from fines, fees, etc.,	12,017 10	
		$155,517 10
Expenditures,	$154,829 58	
Balance,	687 52	
		$155,517 10

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TABULATED STATEMENT OF ARRESTS FOR THE YEAR ENDING NOVEMBER 30, 1911.

MONTHS.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Totals.
Males	327	278	235	306	315	298	356	296	363	391	347	325	3,839
Females	24	15	33	13	18	28	26	26	19	26	27	33	288
Minors	28	25	23	28	42	36	53	39	48	37	51	42	452
Adults	323	268	245	291	291	290	329	285	334	380	323	316	3,675
Residents	245	188	195	211	216	237	261	210	259	277	244	277	2,820
Non-Residents	106	105	73	108	117	89	121	114	123	140	130	81	1,307
Americans	225	195	166	200	219	210	252	206	241	250	243	240	2,647
Foreigners	126	98	102	119	114	116	130	118	141	167	131	118	1,480
Total Arrests	351	293	268	319	333	326	382	324	382	417	374	358	4,127

DISPOSITION OF CASES.

Fined and Paid	51	61	47	54	57	65	84	48	67	76	56	62	729
Fined and Committed	48	49	42	58	43	65	53	64	67	58	78	78	703
Committed on Sentence	69	36	36	35	43	29	39	30	25	40	38	50	470
Probated	5	1	5	3	4	6	4	4	4	6	6	9	57
Sentence suspended	42	61	34	71	57	51	60	48	62	54	54	53	647
Appealed	3		7			1		1			6	1	19
Bound Over to Superior Court		1				1		1	4	1			8
Released	80	92	71	95	91	82	104	115	121	89	86	43	1,069
Discharged	11	3		7	5	8	10	7	8	9	4	3	75
Pending	142	123	85	94	100	109	120	103	108	97	105	102	1,288
Filed Away	14	16	12	14	12	9	10	21	11	12	23	17	171
Total													

AMOUNT OF FINES.

Imposed	$1410	1485	1256	1609	1096	1224	1813	2002	1299	1679	1641	3253	$19767.00
Paid	748	655	798	835	643	727	922	962	560	1252	686	696	9484.00

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REPORT OF THE MATRONS.

	Female Prisoners.	Female Lodgers.	Lost Children.
December,	24	3	2
January,	15	8	2
February,	33	1	4
March,	13	2	7
April,	18	3	16
May,	28	6	13
June,	26	1	14
July,	26	3	10
August,	19	2	4
September,	26	0	13
October,	27	5	7
November,	33	2	9
	288	36	101

THEATRICAL POSTERS INSPECTED.

Number of posters inspected,	8,756	
Approved,		8,317
Disapproved,		439

MISCELLANEOUS DUTIES.

Accidents reported,	217
Buildings open and secured,	1,195
Defective streets reported,	51
Defective sidewalks reported,	297
Disturbances suppressed,	49
Electric lights out,	1,536
Fire alarms given,	7
Fire alarms reported,	289
Gambling reported,	1
Intoxicated persons sent home,	12
Lost children restored,	101
Lights hung in dangerous places,	40
Notices served,	90
Teams put up,	7

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PATROL AND AMBULANCE REPORT.

	MODEL G.				MODEL F.		
	Regular.	Emergency.	Fire.		Regular.	Emergency.	Fire.
December,	153	9	7	December,	206	8	8
January,	150	9	8	January,	131	1	5
February,	126	5	6	February,	135	1	8
March,	68	3	6	March,	218	7	7
April,	40	1	3	April,	299	12	7
May,	201	7	2	May,	169	2	6
June,	222	12	5	June,	154	0	9
July,	215	28	3	July,	169	8	15
August,	282	16	3	August,	153	1	8
September,	320	13	4	September,	167	3	2
October,	172	12	7	October,	107	9	2
November,	220	6	4	November,	115	3	3
	2,169	121	58		2,023	55	80
	2,348				2,158		

Number of miles run during the year, Model "G,"	4,897	
Number of miles run during the year, Model "F,"	4,491	
Number of miles run during the year, both autos,		9,388
Number of miles run by Model "G" during the three years it has been in commission, ...		15,619
Number of miles run by Model "F" during the seven years it has been in commission, ...		33,361

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WILLIAM J. QUILTY, Chief of Police.

SIR: I herewith submit to you the annual report of the arrests, cases investigated, property recovered, etc., by the Detective Bureau during the year 1911.

Abandoning child,	1
Arson,	1
Assault,	3
Assault and robbery,	1
Assault on officer,	1
Assault to murder,	1
Assault with deadly weapon,	4
Assault, indecent,	1
Bastardy,	4
Being present where opium is found,	6
Breaking and entering,	16
Breaking freight car seal,	3
Carrying concealed weapon,	1
Carrying loaded revolver,	1
Driving away team,	2
Fugitive from justice,	89
Gambling,	6
Having obscene pictures,	1
Illegal gaming house,	1
Keeping opium,	1
Larceny,	179
Larceny from the person,	1
Larceny from common carrier,	4
Larceny in a building,	4
Lewd and lascivious,	5
Lewd and lascivious cohabitation,	5
Malicious mischief,	1
Manslaughter,	2
Murder,	1
Non-support,	4
Peddling jewelry,	3
Profane and indecent language,	1
Promoting lottery,	3
Receiving stolen goods,	8

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Rape,	2
Taking vehicle without permission,	3
Trespass,	1
Unnatural crime,	1
Uttering forged checks,	1
Vagrancy,	7
Violating city ordinance,	2
Violating employment law,	3
Violating food law,	2
Violating immigration law,	3
Violating park ordinance,	1
Wantonly destroying property,	1
Whole number of arrests,	390

Suspects brought in and investigated,	477
Total number of cases investigated,	3,636
Cases investigated for City Solicitor,	22
Cases investigated for License Commissioners,	40
Cases investigated for the State Department,	1
Value of property reported stolen,	$15,710 25
Value of property recovered,	13,494 37
Value of property recovered for other cities,	4,822 00

Respectfully submitted,

JOHN H. BOYLE,

Chief Inspector.

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OFFENSES.

Abandoning child,	2
Adultery,	7
Arson,	1
Assault and battery,	103
Assault on officer,	13
Assault with dangerous weapon,	2
Assault with deadly weapon,	6
Assault with intent to rob,	1
Assault, indecent,	1
Attempt to break and enter,	3
Bastardy,	8
Being present at illegal game,	11
Being present at an opium resort,	32
Breaking and entering,	32
Breaking glass,	2
Breach of the peace,	126
Carrying concealed weapon,	4
Carrying dangerous weapon,	1
Carrying loaded revolver,	20
Common night walker,	19
Delinquents,	27
Deserter,	2
Destroying property,	2
Disorderly conduct,	4
Disorderly house keeping,	1
Distributing obscene literature,	1
Disturbing on a street car,	1
Driving away a team,	4
Drunkenness,	2,892
Evading railroad fare,	1
Falsely hiring a team,	1
Forgery,	3
Fornication,	52
Fugitive from justice,	75
Gambling,	26
Illegal game,	23
Illegal liquor keeping,	3
Illegal liquor selling,	12
Insane,	25

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Indecent exposure,	3
Keeping a gambling house,	1
Keeping an opium resort,	2
Keeping an unlicensed dog,	10
Larceny,	165
Larceny from a common carrier,	1
Larceny from the building,	3
Larceny from the person,	2
Larceny of cherries,	2
Lewd and lascivious,	6
Lewd and lascivious cohabitation,	3
Malicious mischief,	12
Maliciously taking an automobile,	2
Manslaughter,	3
Murder,	1
Non-support,	42
Peddling without license,	8
Peddling jewelry without license,	2
Profane and indecent language,	17
Rape,	2
Receiving stolen goods,	7
Reckless driving,	3
Runaways,	53
Selling leased property,	1
Spitting on sidewalk,	1
Stubborn and disobedient,	4
Suspicious,	317
Trespass,	31
Truant,	1
Unnatural crime,	1
Violating bicycle law,	2
Violating City Ordinance,	54
Violating drug law,	2
Violating food law,	4
Violating employment law,	3
Violating health law,	3
Violating intelligence office law,	3
Violating license law,	1
Violating Lord's day,	31
Violating milk law,	1

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Violating oleomargarine law,	20
Violating plumbers' law,	1
Violating scale law,	6
Violating school law,	1
Violating smoke law,	4
Violating statute law,	2
Violating traffic law,	11
Violating weight law,	12
Violating automobile law,	62
Violating United States postal law,	1
Vagrancy,	91
Walking railroad track,	53
	4,127

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The following is a schedule and valuation of the property in charge of the Police Department:—

PROPERTY AND BUILDINGS.

Court Street property,	$20,000 00
Court Street building,	116,000 00
Indian Orchard property and building,	5,000 00
Police signal system,	12,000 00

COMMISSIONERS' OFFICE.

1 table,	$44 00	
6 chairs,	30 00	
2 cuspidors,	4 00	
1 rug,	65 00	
1 telephone stand,	5 00	
1 safe,	100 00	
1 glass front case,	5 00	
1 four section cabinet,	12 00	
1 frame and picture,	15 00	
3 maps,	15 00	
2 frames,	2 00	
1 hat rack,	2 50	
1 clock,	16 00	
1 wastebasket,	50	
		$316 00

CHIEF'S OFFICE.

1 desk,	$35 00	
1 rug,	50 00	
5 chairs,	12 50	
1 wardrobe,	25 00	
1 rug,	2 00	
1 cuspidor,	1 00	
1 wastebasket,	50	
		$126 00

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CLERK'S OFFICE.

1 desk,	$20 00	
2 typewriter desks,	35 00	
2 typewriter chairs,	10 00	
2 chairs,	10 00	
2 Remington typewriters,	200 00	
1 table,	8 00	
5 four section filing cabinets,	15 00	
1 five section card cabinet,	100 00	
1 two section card cabinet,	20 00	
1 three section filing cabinet,	14 00	
1 revolving cabinet,	10 00	
1 Burroughs adding machine,	110 00	
2 electric drop lights,	6 00	
1 pencil sharpener,	7 00	
1 umbrella stand,	2 00	
3 wastebaskets,	1 00	
1 Webster's dictionary,	12 00	
1 atlas,	10 00	
1 city directory,	4 00	
1 Beck duplicator,	10 00	
3 frames,	3 00	
Stationery, time books, envelopes, record books, arrest cards, arrest books, property envelopes, patrolmen's reports, etc., etc.,	300 00	
		$907 00

CHIEF INSPECTOR'S ROOM.

1 desk,	$20 00	
1 safe,	50 00	
1 electric drop light,	5 00	
1 swivel chair,	6 00	
4 chairs,	8 00	
1 locker,	11 00	
2 frames,	1 00	
1 city directory,	4 00	
1 cuspidor,	1 50	
1 wastebasket,	50	
		$107 00

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INSPECTORS' ROOM.

5 roll top desks,	$80 00	
5 armchairs,	12 50	
5 armchairs,	10 00	
5 cuspidors,	1 00	
5 lockers,	55 00	
5 wastebaskets,	1 50	
		$160 00

PRIVATE ROOM.

1 long table,	$12 00	
4 armchairs,	8 00	
1 locker,	12 00	
		$32 00

BERTILLON ROOM.

1 Bertillon complete outfit,	$650 00	
1 finger print stand and fixture,	8 00	
1 table,	5 00	
2 chairs,	4 00	
1 Fairbanks' scales,	23 00	
1 picture gallery,	18 00	
2 wastebaskets,	1 50	
1 electric fan,	16 00	
Photographic supplies,	20 00	
		$745 50

DEPUTY CHIEF'S ROOM.

1 desk,	$15 00	
1 swivel chair,	5 00	
3 armchairs,	6 00	
1 safe,	30 00	
1 relic cabinet,	25 00	
1 revolving bookcase,	2 00	
1 box of blanks,	2 00	
1 clock,	10 00	
1 cuspidor,	50	
1 drop light,	3 50	
1 locker,	11 00	
Pictures,	2 00	
		$112 00

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CAPTAIN'S ROOM.

1 desk,	$38 00	
1 swivel chair,	6 00	
1 armchair,	2 00	
1 cuspidor,	50	
1 wastebasket,	50	
1 revolver case,	5 00	
1 locker,	11 00	
1 electric drop light,	5 00	
Frames, etc.,	15 00	
		$83 00

SIGNAL ROOM.

1 clock,	$15 00	
2 swivel chairs,	10 00	
2 frames,	1 00	
1 wastebasket,	50	
2 lockers,	22 00	
		$48 50

GENERAL OFFICE.

2 swivel chairs,	$10 00	
1 city directory,	4 00	
1 arrest book,	10 00	
1 wastebasket,	50	
1 clock,	17 50	
2 cuspidors,	1 00	
		$43 00

LIEUTENANT'S ROOM.

2 desks,	$40 00	
2 swivel chairs,	10 00	
1 table,	2 00	
1 electric drop light,	5 00	
1 locker,	11 00	
		$68 00

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EMERGENCY ROOM.

1 table,	$20 00	
1 stand,	10 00	
1 bowl stand,	10 00	
1 steam sterilizer,	10 00	
Drugs, etc.,	10 00	
		$60 00

MATRONS' ROOM.

1 desk,	$15 00	
2 rockers,	12 00	
2 armchairs,	5 00	
3 rugs,	75 00	
1 mirror,	4 00	
1 stand,	2 00	
1 leather couch,	18 00	
1 bureau,	5 00	
1 stand,	1 00	
		$137 00

MEN'S DETENTION ROOMS.

2 couches,	$10 00	
2 hair mattresses,	20 00	
2 pillows,	4 00	
4 chairs,	4 00	
		$38 00

WOMEN'S DETENTION ROOMS.

2 beds, springs, mattresses, etc.,	$50 00	
4 chairs,	8 00	
		$58 00

MEN'S LOCKUP.

1 clock,	$10 00	
		$10 00

WOMEN'S LOCKUP.

6 mattresses,	$32 00	
6 pillows,	5 00	
		$37 00

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COURT ROOM.

Furniture,		$500 00

JUDGE'S ROOM.

1 desk,	$15 00	
4 armchairs,	6 00	
1 cuspidor,	50	
		$21 50

CLERK OF COURT.

1 table,	$10 00	
1 chair,	2 00	
1 electric lamp,	8 00	
		$20 00

PROSECUTING ATTORNEY'S ROOM.

1 desk,	$20 00	
1 swivel chair,	5 00	
2 armchairs,	4 00	
		$29 00

WITNESS ROOM.

8 chairs,	$8 00	
		$8 00

JUVENILE COURT ROOM.

1 table,	$9 00	
2 benches,	24 00	
2 chairs,	4 00	
		$37 00

SERGEANTS' ROOM.

6 flat top desks,	$55 00	
6 armchairs,	16 00	
2 chairs,	2 00	
6 wastebaskets,	2 00	
6 cuspidors,	1 00	
6 inkstands,	1 00	
2 frames,	1 00	
3 maps,	9 00	
		$87 00

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LOCKER ROOM.

113 lockers,	$900 00	
30 chairs,	30 00	
1 water filter,	15 00	
		$945 00

ASSEMBLY ROOM.

1 table,	$20 00	
38 chairs,	57 00	
1 blackboard,	24 00	
3 frames,	3 00	
6 wire nets for lights,	3 00	
		$107 00

RECORD ROOM.

1 Neostyle machine,	$30 00	
1 cloth chest,	5 00	
Shelves,	40 00	
		$75 00

REVOLVER RANGE.

Revolver range,	$400 00	
Target plates,	20 00	
Ammunition, 16,000 rounds,	160 00	
		$580 00

EQUIPMENT.

140 revolvers,	$1,400 00
125 badges,	125 00
135 pairs of handcuffs,	475 00
6 superior officers' badges,	48 00
240 belts,	312 00
150 clubs,	100 00
125 parade clubs,	125 00
125 parade tassels,	62 50
140 leaders,	70 00
150 signal box keys,	30 00
150 flash lights,	100 00
140 diaries,	60 00

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140 belts and holsters,	$200 00	
200 copies of rules and regulations,	100 00	
250 emblems for caps,	120 00	
6 emblems for caps,	2 00	
Uniform cloth,	200 00	
Buttons, batteries, etc.,	50 00	
		$3,589 50

STOREROOM.

1 American flag,	$8 00	
1 linen box,	2 00	
210 towels,	10 00	
16 roller towels,	1 50	
1 iron bed and spring,	2 00	
1 wooden bed and spring,	2 00	
1 mattress,	2 00	
1 quilt,	1 00	
5 pillows,	2 00	
75 feet of hose,	5 00	
1 hose reel,	5 00	
1 coal hod,	1 00	
1 coal shovel,	50	
1 snow shovel,	50	
1 wheelbarrow,	2 00	
2 cupboards,	14 00	
1 mowing machine,	3 00	
1 grass hook,	1 00	
16 lockers,	75 00	
2 dustpans,	50	
1 whitewash brush,	50	
1 Fairbanks' scales,	2 50	
48 drinking cups,	6 00	
		$147 00

JANITORS' SUPPLIES.

¼ barrel liquid soap,	$5 00
50 bars of soap,	2 50
50 pounds of soap powder,	2 50
½ barrel exterminating gas,	2 50
¼ barrel disinfectant,	10 00

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8 gallons Egyptian spray,	$40 00	
1 quart Three-in-One oil,	1 00	
5 mops,	5 00	
4 mop handles,	40	
3 brooms,	1 00	
1 floor brush,	1 00	
90 pounds Dutch Cleanser,	3 60	
7 boxes Shinola,	2 00	
8 quarts Royal polish,	8 00	
3 daubers,	1 00	
3 electric light shades,	3 00	
11 electric light globes,	2 50	
10 gross Star matches,	2 00	
71 packages toilet paper,	3 00	
1 glass pitcher,	50	
1 china pitcher,	50	
1 coffee urn,	3 00	
3 chairs,	3 00	
10 ash cans,	20 00	
1 ladder,	3 00	
4 mop pails,	4 00	
2 mop wringers,	3 00	
3 tables,	6 00	
		$139 00

GARAGE.

1 Model "G" automobile patrol,	$2,500 00	
1 Model "F" automobile patrol,	1,000 00	
1 set of tools,	50 00	
4 lockers,	20 00	
1 workbench,	30 00	
87 feet water hose,	9 00	
30 pounds cotton waste,	2 00	
15 pounds cotton rags,	1 00	
3 extra shoes for cars,	75 00	
3 extra inner tubes for cars,	25 00	
1 lap robe,	6 00	
700 feet rope,	15 00	
2 stretchers,	15 00	
3 sets grappling irons,	7 50	

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4 lanterns,	$2 00	
4 gallons oil,	1 40	
25 gallons gasolene,	2 75	
25 pounds grease,	2 00	
1 cupboard for oil and gasolene,	25 00	
3 pictures,	3 00	
1 desk,	6 00	
3 chairs,	6 00	
4 sets tire chains,	10 00	
1 set pulley blocks,	5 00	
1 vise,	5 00	
58 feet tire chain,	6 00	
15 pounds automobile soap,	1 50	
2 sponges,	50	
1 galvanized pail,	50	
40 pounds carbide,	1 50	
1 water cooler,	3 00	
1 electric vulcanizer,	25 00	
1 shovel and ice pick,	50	
Soap and kerosene,	55	
3 automobile drip pans,	8 00	
82 iron stakes,	40 00	
1 ambulance basket,	5 00	
2,000 feet rope,	25 00	
		$3,970 70

CORRIDORS, ETC.

3 mats,	$18 00	
12 cuspidors,	12 00	
1 bench,	12 00	
1 water filter,	15 00	
Linoleum in building,	500 00	
Shades,	110 00	
		$667 00

BICYCLE ROOM.

8 bicycles,	$200 00	
1 bicycle rack,	3 00	
		$203 00

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STATION NO. 2, INDIAN ORCHARD.

1 horse patrol wagon,	$96 00	
1 set of harness,	16 00	
1 roll top desk,	16 00	
7 chairs,	7 00	
1 clock,	8 00	
9 patrolmen's lockers,	220 00	
25 tons of coal,	150 00	
2 bicycles,	25 00	
Linen, books, and office supplies, etc.,	50 00	
		$588 00

RECAPITULATION.

Court street property,	$20,000 00
Court street building,	116,000 00
Indian Orchard property and building,	5,000 00
Police signal system,	12,000 00
Commissioners' office,	316 00
Chief's office,	126 00
Clerk's office,	907 00
Chief inspector's office,	107 00
Inspectors' room,	160 00
Private room,	32 00
Bertillon room,	745 50
Deputy chief's room,	112 00
Captain's room,	83 00
Signal and telephone room,	48 50
General office,	43 00
Lieutenant's room,	68 00
Emergency room,	60 00
Matrons' room,	137 00
Men's detention rooms,	38 00
Women's detention rooms,	58 00
Men's lockup,	10 00
Women's lockup,	37 00
Court room,	500 00
Judge's room,	21 50
Clerk of the court,	20 00
Prosecuting attorney's room,	29 00

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Witness room,	$8 00	
Juvenile court room,	37 00	
Sergeants' room,	87 00	
Locker room,	945 00	
Assembly room,	107 00	
Record room,	75 00	
Revolver range,	580 00	
Equipment,	3,589 50	
Storeroom,	147 00	
Janitors' supplies,	139 00	
Garage,	3,970 70	
Corridors, etc.,	667 00	
Bicycle room,	203 00	
Indian Orchard,	588 00	
		$167,801 70

Respectfully submitted,

WM. J. QUILTY,

Chief of Police.

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WATER COMMISSIONERS.

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CITY OF SPRINGFIELD, MASSACHUSETTS, WATER DEPARTMENT.

1912.

BOARD OF WATER COMMISSIONERS.

FRED R. BROWN, *Acting Chairman,* Term expires February 1, 1913.
HERBERT C. PUFFER, Term expires February 1, 1914.
EDWARD H. LATHROP, *Mayor,* ex officio.

SUPERINTENDENT:

ALFRED E. MARTIN.

WATER REGISTRAR AND CLERK OF BOARD:

ALFRED R. HATHAWAY.

CHIEF ENGINEER:

ELBERT E. LOCHRIDGE.

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WATER COMMISSIONERS' REPORT.

WATER COMMISSIONERS' OFFICE,
121 BRIDGE STREET,
SPRINGFIELD, MASS., December 28, 1911.

To the City Council of the City of Springfield, Mass.

GENTLEMEN:—The Board of Water Commissioners herewith submits its thirty-eighth annual report, being for the fiscal year ending November 30, 1911, together with the reports of its Water Registrar, Superintendent and Chief Engineer.

FINANCIAL.

The total amount of *cash* receipts from *water rates* for the year 1911 was $341,057.40, being an increase over the preceding year of $18,211.56. The total *cash* receipts from *all sources*, including sales, were $398,053.10. The ordinary extensions of mains into districts not supplied heretofore cost $17,665.27. The extension of mains and the replacement with larger mains of existing pipes, either considered too small for the territory now supplied or of materials now considered unsafe, cost, including hydrants, $39,748.77. The replacement of the twenty-four-inch cement-lined Ludlow main in State street by twenty-inch and twenty-four-inch cast-iron cost $9,429.06, included in the above amount. The total cost for extensions and improvement of the distribution system within the city was $57,414.04.

Interest was paid during the year to the amount of $18,375.00 on outstanding Ludlow bonds, and $71,830.00 on Little River bonds, making a total paid out on account of

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interest of $90,205.00. Two serial payments amounting to $20,000 were made to retire Little River bonds. $9,952.96 was added to the sinking fund for the retirement of the Ludlow bonds. This makes a total payment of $120,157.96 on interest, bonds, and sinking fund accounts for the year. The total *cash* expenditures for all purposes, including maintenance, construction, interest, bond payments and sinking fund, were $398,053.10.

The net total Little River bonded indebtedness now amounts to $1,968,000. The remaining Ludlow bonded indebtedness is $475,000. There is available in the sinking fund, $218,484.07 for the retiring of this latter amount, leaving a net indebtedness on the Ludlow system of $256,515.93.

The amount required during the year 1912 on the bond account will be as follows:—

Interest on Little River bonds,.....	$70,330 00	
Interest on Ludlow bonds,.....	18,375 00	
Total amount for interest,...		$88,705 00
Serial payments on Little River bonds,	$60,000 00	
Sinking fund for Ludlow bonds,....	22,000 00	
Total amount for principal,..		82,000 00
Total for interest and principal,..		$170,705 00

The year 1912 is the first year in which large serial payments are necessary on the Little River account. During the following year this amount will be increased by $14,000, which will be the maximum annual retirement figure and, accordingly, the years 1912, 1913 and 1914 will be the years in which the burden of the payment for the new supply will be most seriously felt, and in which the other expenditures will have to be guarded most carefully.

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LITTLE RIVER SUPPLY.

The second year of the operation of the Little River system has been very satisfactory. The quality of the water delivered has been good at all times, and at no time has it been necessary to impose any restrictions on the use of water for any purposes. This was especially gratifying inasmuch as the year has been dry and followed a series of very dry years, and has been one which has taxed the resources of many of our neighboring cities, forcing many of them to limit the use of water for fountains, street sprinkling, and some manufacturing purposes.

EXTENSION OF THE DISTRIBUTION SYSTEM.

The extension of water mains within the city and the expenditures therefor are made for two reasons: first, the carrying of water to the newer portions of the city for domestic and fire supplies, and, second, the increasing of the size of existing mains to give better service or fire protection in portions of the city which have developed beyond the resources previously available.

It has been the policy of this Board to make both classes of these extensions as rapidly as possible. The income derived from the sale of water is the only money available for these purposes. The surplus, remaining after the expenditures necessary for maintenance and payments on account of the bonded indebtedness, is the amount which can be used for these purposes. The rapid growth of the city brings many problems and extensions, and improvements are needed in many portions of the city, frequently making it difficult to determine where the most service can be obtained with the limited funds available. The large payments needed for interest and retirements of bonds will make the incoming year one in which all such expenditures will have to be considered with the utmost care.

During the past year pipe has been purchased for the

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extension of a large main from Oakland street, via Dickinson street, Sumner avenue, and White street, to a point near the city line. The laying of this main has been postponed until next year, and will probably be the largest improvement on account of fire protection during the year. The twenty-four-inch cement-lined main, which has served since 1875 for bringing water from the Ludlow reservoir, and in later years for the supplying of State street and the hill section, will have to be replaced within a few years. During the past year, 2,760 feet of this pipe have been replaced between Federal street and Winchester square. A few of the smaller cement-lined mains are still in service in the hill section, and these will also have to be replaced with cast-iron as soon as money is available for this purpose.

HYDRAULIC ELEVATORS.

As forecasted in the report of last year, the order prohibiting the use of water for any additional direct-pressure hydraulic elevators has been followed by an order which will take effect July 1, 1912, prohibiting the use of water for existing direct-pressure elevators. Exceptions to this restriction may be made in the case of "ash or freight lifts operating through less than one story in height and at a speed not exceeding twelve feet per minute, small passenger elevators in strictly private residences, in cases where any other motive power is practically precluded, and in cases when the exception is not inconsistent with the public interest." A number of elevator owners have already made the change from the direct system, and a general compliance with the order will remove to a considerable extent the menace of serious water-hammer and its attendant dangers.

A sixteen-inch connecting line has been built between the thirty-inch Ludlow main and the village of Indian Orchard. Heretofore, this portion of the city was dependent entirely on

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the cement-lined main laid at the time of the installation of the Ludlow system. This adds to the security of the system and will benefit the service for this portion of the city.

METERS.

It has been the policy for some time past to extend the meter system so that ultimately every connection with the mains will carry a meter. In the past, certain classes of users, the larger sizes of services, and all new connections, have from time to time been brought within the rule requiring meters. In June it was decided that all water sold should be by quantity only. Accordingly, meters will be placed as rapidly as possible on the premises now taking water at fixed annual rates. The use of meters has not restricted the use of water to an appreciable extent. The meter does, however, detect the waste of water due to carelessness or to defective piping. With the metering of all users it also tends to decrease the losses from mains, and to show exactly what water is needed for all purposes. With this order in effect, there will remain but one class of unmetered service, and it is to this class that we desire to call your attention. The municipality is the largest user of water on the system, and as no revenue is collected from such service its use by the municipality is extensive in many ways which would not be advantageous for individuals or corporations. While we believe that this department should receive a return for the service extended by it to other departments, in the same manner that the services of other departments are charged against this department, it is not this feature that we wish especially to call your attention to at this time. The cost of impounding, purifying, and delivering the water so freely used and wasted by the municipality is as great as for any equal amount used in other manners, and accordingly, the waste, at least, from these large services should be guarded against as carefully as it is in the case of private consumers.

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The Board wishes to repeat its recommendation of last year that a resolution be passed requesting the City Property Committee to co-operate with the Water Department in installing meters in all municipal buildings and appropriate a sum of money sufficient to cover the cost of the necessary meters. To secure information on the use of water in the school buildings, meters were installed, at the expense of this department, in the Central High School and in the North Chestnut Street School, and the following is a portion of the records of these meters.

Average number of gallons of water drawn daily at Central High School for five school days (Monday to Friday):—

During May,.....	178,102
During June,.....	174,505
During September,.....	175,262
During October, November and to December 15th,.....	252,855
December 18th to 22d,.....	272,740

The average number of gallons of water drawn daily at the Central High School on Saturday and Sunday is from 15,000 to 16,000.

Average number of gallons of water drawn daily at North Chestnut Street School (week of seven days):—

During June,.....	8,565
During summer vacation,.....	1,466
During October and November,.	11,991
December 1st to 15th,.....	10,959
December 18th to 22d (five school days),.....	15,559

These tables give an idea of the excessive amount of water drawn in buildings where there is no personal incentive for economy. At the minimum rate the water used at the Central

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High School would cost a consumer $3,675.00 a year, and this represents but little more than the actual cost to this department of this water. As the larger part of the amount recorded is drawn for the operation of the ventilation system, the substitution of cheaper power would be an economical move.

There are at present 8,414 metered supplies in the city, representing 64.80 per cent of the total number of services. The amount of water used through these meters represents 48 per cent of the total water consumption, while 71.81 per cent of the water revenue was derived from the sale of metered water.

SUBURBAN TOWNS.

There have been a number of requests from neighboring towns for the use of water from both the Little River and the Ludlow systems. At the time the first of these petitions was received, the new supply had just been put into service. Nothing was known of its possibilities and little was known of the daily needs of the city. A decision on the advisability of the sale of water at that time would not have been possible with the best interests of the city considered. The experience which has come from two years' operation, especially through two dry seasons and the meter records of the city's needs, together with the study of the amounts which the outlying towns could take, have helped in the consideration of this matter. The repeated requests from some of our neighbors, together with the certainty that in at least some cases other supplies cannot be secured for these localities, have brought to the Board the conviction that permissive authority for such sale of water should be secured. It would not be possible to supply some of these towns without such additional legislation. A petition has accordingly been drawn which has received the sanction of the city government, and the legislature of the incoming year will be asked to grant to Springfield the right to furnish water to any of the cities or

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towns of Hampden County upon terms which may be mutually agreed upon.

The resignation of Mr. Stanford L. Haynes from this Board removed from its counsels a commissioner whose services have been of great value, and one who had given much time and thought to the affairs of this department. Mr. Fred R. Brown was elected to his place September 18th.

It is not possible in this report to cover the details of the financial, statistical, construction, distribution and supply matters which may be found in the reports submitted to the Board by the Water Registrar, Superintendent, and Chief Engineer, which reports, with their accompanying appendices, are attached to and made a part of this report.

Respectfully submitted,

C. A. CROCKER,
EDWARD H. LATHROP,
FRED R. BROWN,

Board of Water Commissioners.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved, for printing.

EDWARD H. LATHROP, *Mayor.*

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WATER REGISTRAR'S REPORT.

To the Board of Water Commissioners of the City of Springfield, Mass:—

GENTLEMEN:—I herewith submit the annual report of the Water Registrar for the year ending November 30, 1911.

FISCAL YEAR.

Before presenting the usual financial and statistical statements, I wish to once more call your attention to certain peculiar accounting conditions resulting from the change (in 1907) of the end of the city's fiscal year from December 10 to November 30 and the ensuing practice of closing the city's *cash* account on the latter day without providing for the payment of all *November* bills and pay rolls of each year from the *cash receipts of the year then closing.*

As stated in my reports for 1907 and 1908, "The inevitable result is that the cost of all work and operation for the month of November must be charged and recorded with the accounts of the past year without such cost being met from the cash receipts of that year." "Hence the total expenditures charged during any *work-year* (December 1 to November 30, inclusive) *will not necessarily agree* with the total *cash* expenditures of the same year."

This condition has been noted also the past year during a study of the city's accounting system by Mr. Harry T. Upham, who represented the State Bureau of Statistics, and who states in his suggestions to the Finance Committee, as follows: "******We wish to advise that the December warrant of the

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November bills be included in the expenses of the fiscal year ending November 30th, as it seems rather incongruous to include the weekly pay rolls and not include the bills, besides making the accounts of the City Auditor differ from those of the other departments of the city."

I have heard it suggested that one November would probably offset another, but this is not found to be the fact in actual practice, and as each year has its own work and expenditures to be taken care of independently of any other year, it would seem to be good business to adopt Mr. Upham's suggestion.

Until such suggestion is put into practice the reports of work and expenditures in the water department will need to show the differences between the *work-year* and *cash-year* totals, as shown in the report now presented.

For convenient reference the customary arrangement of this report into three principal statement-divisions is continued, as follows:—

1.—General Financial Statements.
2.—Detail Financial Statements.
3.—Miscellaneous Statements.

1.—GENERAL FINANCIAL STATEMENTS.

WATER-WORKS CASH ACCOUNT.—1911.

(Exclusive of Little River Supply Fund.)

To collections paid City Treasurer by City Collector (total cash receipts) (including $5,400.00 interest for use of Little river supply funds and $12,138.40 for refund of Little river supply construction bills paid from water-works funds), ...	$398,053 10

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By approved bills and pay rolls paid from water-works receipts by City Treasurer, as follows:—			
Total bills approved,		$163,838 98	
Less amount overpaid and refunded,		24 24	
Net total bills approved and paid,		$163,814 74	
Total pay rolls approved and paid,		114,080 40	
		$277,895 14	
By interest on water bonds paid by City Treasurer, as follows:—			
Account Ludlow supply,	$18,375 00		
Account Little river supply (see note, interest account),	71,830 00	90,205 00	
By payment on bonds due, on account of Little river supply,		20,000 00	
Total cash payments from water-works receipts,		$388,100 14	
By surplus balance for sinking fund (account of Ludlow supply bonds),		9,952 96	
			$398,053 10

LITTLE RIVER SUPPLY FUND.—1911.

To cash balance in hands of City Treasurer, November 30, 1910,			$268,321 05
To cash reversion from sundry sales of materials and supplies,			190 10
Total cash available in 1911,			$268,511 15
By approved bills and pay rolls paid by City Treasurer, 1911, as follows:—			
Total bills approved and paid,		$71,682 03	
Total pay rolls approved and paid,		6,701 18	
			78,383 21
To cash balance in hands of City Treasurer, November 30, 1911,			$190,127 94

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The following statements show the *net cost* of maintenance, construction, sales, and surplus material accounts *charged* during the past *work-year*, together with totals and summary of same conforming to the *cash-year:*—

MAINTENANCE.—1911.

General management and repairs (operating) —including engineering, meter setting and repairs, filter operating, etc.:—		
Ordinary (as heretofore),	$67,446 65	
Little river supply operating (additional),	33,758 24	
		$101,204 89
Distribution mains,—renewal:—		
Streets,—ordinary,	$185 21	
Streets,—improvement,	14,184 04	
		14,369 25
Distribution system improvement (not easily separable to street accounts),	$2,646 86	
Damages (account broken mains, etc.),	11,105 16	
Hydrants,—care and repairs (changing nozzles),	3,961 43	
Ludlow Main, No. 2,—care and repairs (lowering main at East Springfield),	2,065 52	
Office work—special (account changing system, etc.),	1,213 27	
Electrolysis,	6 66	
		20,998 90
Total maintenance charged (not including interest), 1911,		$136,573 04
Less *value* of water used by Water Department ($122.00), and *value* of house rentals allowed employees ($1,452.00), both included above but *not cash*,		1,574 00
Net total maintenance charged, 1911 (from bills and pay rolls approved on account of 1911 work, etc.) (not including interest) (forward)		$134,999 04

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Amount forward,		$134,999 04
Plus November, 1910, bills and pay rolls approved and charged to 1910 work (not included above) but paid from 1911 cash receipts,	$5,625 83	
Less November, 1911, bills and pay rolls approved and charged to 1911 work (included above) but not paid from 1911 cash receipts,	3,892 33	
Plus net difference of November accounts,		1,733 50
Net total maintenance (not including interest) paid from *1911 cash* receipts,		$136,732 54
Interest paid on water bonds from 1911 *cash* receipts,		90,205 00
Net total maintenance, 1911 (including interest), paid from *1911 cash* receipts,		$226,937 54

CONSTRUCTION.—1911.

(*Exclusive of Little River Supply.*)

Distribution mains,—extensions:—		
Streets,—ordinary,	$17,665 27	
Streets,—improvement,	20,685 87	
		$38,351 14
Circuit, Forest park section (completion),—improvement,	$962 72	
Circuit, hill section (completion),—improvement,	2,501 25	
Circuit, lower section (completion),—improvement,	1,009 46	
Circuit, lower section, Mill river crossing (completion),—improvement,	71 24	
Circuit, north section (completion),—improvement,	148 98	
		4,693 65
Total distribution mains—extension (forward),		$43,044 79

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Amount forward,			$43,044 79
Hydrants,—extension,—all ordinary,		$1,630 69	
Gates and valves—extension,—ordinary,	$792 45		
Gates and valves—extension,—improvement,	3,180 88		
		3,973 33	
			5,604 02
Total added to distribution system,			$48,648 81
Meters—extension (city meters) (*net*),			1,461 50
Total construction charged,			$50,110 31
Less amount credited "Distribution mains—general" (on account of overcharge in 1910 extensions),			316 19
Net total construction charged, 1911 (from bills and pay rolls approved on account of *1911 work*, etc.),			$49,794 12
Plus November, 1910, bills and pay rolls approved and charged to 1910 work (not included above) but paid from 1911 cash receipts,		$6,015 89	
Less November, 1911, bills and pay rolls approved and charged to 1911 work (included above) but not paid from 1911 cash receipts,		794 14	
Plus net difference of November accounts,			5,221 75
Net total construction, 1911, paid from 1911 *cash* receipts,			$55,015 87

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SALES.—1911.

Cost of 1911 "Sales" charged for services, meters, repairs, etc. (*net*),		$46,683 56
Less November, 1911, bills and pay rolls approved and charged to **1911 sales** (included above) but **not paid from 1911 cash receipts,**	$9,673 38	
Plus November, 1910, bills and pay rolls approved and charged to **1910 sales** (not included above) but **paid from 1911 cash receipts,**	1,778 27	
Less net difference of November accounts,		7,895 11
Net total cost of sales paid from 1911 *cash* receipts,		$38,788 45

INVENTORY.—1911.

Cost of 1911 "Inventory" increase over 1910 inventory,		$47,873 79
Less November, 1911, bills approved and charged to **1911 inventory** (included above) but **not paid from 1911 cash receipts,**	$5,326 60	
Plus November, 1910, bills approved and charged to **1910 inventory** (not included above) but **paid from 1911 cash receipts,**	4,811 09	
Less net difference of November accounts,		515 51
Net total cost of inventory increase paid from 1911 *cash* receipts,		$47,358 28

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SUMMARY OF WORK AND EXPENDITURES CHARGED.—1911.

(*Exclusive of Little River Supply.*)

(See remarks at beginning of this report.)

Accounts Charged.	*Net* Total Cost Charged During 1911 (from 1911 Approved Bills and Pay Rolls). (Including Interest and Bonds Paid.)	*Plus* Nov., 1910, Accts. Approved and Charged 1910. Paid from 1911 *Cash* Receipts.	*Less* Nov., 1911, Accts. Approved and Charged 1911. Not paid from 1911 *Cash* Receipts.	Net Total Paid from 1911 *Cash* Receipts.
Maintenance,—cost,	$134,999 04	+ $5,625 83	— $3,892 33	$136,732 54
Construction,—cost,	49,794 12	+ 6,015 89	— 794 14	55,015 87
Sales,—cost, . .	46,683 56	+ 1,778 27	— 9,673 38	38,788 45
Inventory increase,	47,873 79	+ 4,811 09	— 5,326 60	47,358 28
Interest payments,	90,205 00	.....	.....	90,205 00
Bond payments, .	20,000 00	.....	.....	20,000 00
Totals (net), . .	$389,555 51	+$18,231 08	—$19,686 45	$388,100 14

COST OF WATER WORKS.—1911.

(*Exclusive of Little River Supply.*)

Net total cost November 30, 1910 (as per last report), .	$2,857,650 38
Net aggregate construction added, 1911, . . .	49,794 12
Net total cost of water works to November 30, 1911, .	$2,907,444 50

Divided as follows:—

Balance of *old "Construction" account* in ledger to *December 10, 1893* (in future to be analyzed and separated, so far as possible, into its component construction and property accounts), . . .	$1,656,562 98	
—(Note amounts credited, etc., since 1899)—		
Net cost of *Ludlow Main No. 2* to date, .	320,986 83	
Net *aggregate of new construction and property accounts* as classified in ledger and annual reports since 1893, ...	929,894 69	
Total as stated, ...		$2,907,444 50

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COST OF LITTLE RIVER SUPPLY.—1911.

Total *cash cost* November 30, 1910 (as per last report),		$1,762,141 18
Approved bills and pay rolls paid by City Treasurer, 1911,	$78,383 21	
Less cash reversions (acct. sales),	190 10	
Net expenditures, 1911,		78,193 11
Total cash cost to November 30, 1911,		$1,840,334 24

BONDED DEBT.—1911.

(*As per books of City Treasurer.*)

Ludlow Supply Bonds:—

125 water bonds (par value $1,000 each), bearing interest at 3½ per cent. (payable semi-annually, April 1 and October 1) issued in 1890 for Ludlow reservoir improvement, and all due October 1, 1920,		$125,000 00
350 water bonds (par value $1,000 each), bearing interest at 4 per cent. (payable semi-annually, April 1 and October 1), issued in 1893 for Ludlow Main No. 2, and due as follows:—		
$200,000 payable April 1, 1913,	$200,000 00	
$150,000 payable October 2, 1923,	150,000 00	
		350,000 00
Total account Ludlow supply, November 30, 1911,		$475,000 00

Little River Supply Bonds:—

270 serial water bonds (par value $1,000 each), bearing interest at 4 per cent. (payable semi-annually, July 1 and January 1), dated January 1, 1907; $10,000 payable annually beginning January 1, 1910, and ending January 1, 1936,	$270,000 00*	
Amounts forward,	$270,000 00	$475,000 00

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	Amounts forward, ...	$270,000 00	$475,000 00
270	serial water bonds (par value $1,000 each), bearing interest at 4 per cent. (payable semi-annually, July 1 and January 1), dated January 1, 1908; $10,000 payable annually beginning January 1, 1911, and ending January 1, 1937, ...	270,000 00**	
1,080	serial water bonds (par value $1,000 each), bearing interest at 3½ per cent. (payable semi-annually, July 1 and January 1), dated January 1, 1909; $40,000 payable annually beginning January 1, 1912, and ending January 1, 1938, ...	1,080,000 00	
378	serial water bonds (par value $1,000 each), bearing interest at 3½ per cent. (payable semi-annually, July 1 and January 1), dated January 1, 1910; $14,000 payable annually beginning January 1, 1913, and ending January 1, 1939, ...	378,000 00	
	Total account Little river supply, .	$1,998,000 00	
	Less payment January 1, 1910 (on first issue), . . . $10,000 00*		
	Less payments January 1, 1911:—		
	on first issue, $10,000*		
	" second " 10,000**	20,000 00	
	Total bond payments account Little river supply, ...	30,000 00	
	Net total, account Little river supply, November 30, 1911, ...		$1,968,000 00
	Total bonded debt, November 30, 1911, . . .		$2,443,000 00

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SINKING FUND.—1911.

(*Account Ludlow Supply Bonded Debt.*)

Balance in hands of sinking fund commissioners, November 30, 1910,	$181,228 63
Net surplus transferred from water-works receipts of 1910,	19,278 41
Interest earnings and additions credited by sinking fund commissioners, 1911 (net),	8,024 07
Balance in hands of sinking fund commissioners, November 30, 1911,	$208,531 11
Available *net* surplus from water-works receipts of 1911,	9,952 96
Total amount available, November 30, 1911,	$218,484 07

INVENTORY.—1911.

The value of stock, tools, furnishings, fixtures, etc., on hand November 30, 1911 (as reported by the Superintendent and the Chief Engineer), is shown as follows:—

Accounts.	Superintendent.	Engineer.	Totals.
Automobiles,	$2,375 00	. . .	$2,375 00
Cast-iron pipe stock,	57,059 61	$346 42	57,406 03
Engineering apparatus,	. . .	1,068 15	1,068 15
Filter supplies (Ludlow),	. . .	925 75	925 75
Furniture and fixtures,	2,321 22	35 00	2,356 22
Meter stock,	13,145 78	. . .	13,145 78
Stores and supplies,	2,287 61	86 45	2,374 06
Teams,	3,874 99	305 80	4,180 79
Tools and machines,	8,848 60	673 55	9,522 15
Wrought-iron pipe stock,	5,807 37	. . .	5,807 37
Total, general,	$95,720 18	$3,441 12	$99,161 30
Little river operating supplies:—			
At Borden brook reservoir,		$583 00	
At Provin mountain reservoir,		142 85	
At West Parish filters,		5,800 62	6,526 47
Aggregate,	$95,720 18	$9,967 59	$105,687 77

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2.—DETAIL FINANCIAL STATEMENTS.

Receipts.—1911.

The following statements of the collection accounts show the analysis of the *cash* receipts of the department:—

BILLS COMMITTED AND CHARGED TO COLLECTOR.

COLLECTION ACCOUNTS.	Uncollected Nov. 30, 1910. (*Forward.*)	Committed During 1911.	Totals.
Water rates—annual,	$982 26	$87,991 56	$88,973 82
Water rates—meter,	961 87	245,845 29	246,807 16
Water rates—hose and fountains,	80 00	4,261 00	4,341 00
Water rates—builders,	169 17	2,306 63	2,475 80
Water rates—miscellaneous,*	25 00	*4,187 16	4,212 16
Total water accounts,	$2,218 30	$344,591 64	$346,809 94
Services and repairs,	$862 64	$16,181 22	$17,043 86
Meters and repairs,	759 39	12,299 87	13,059 26
Fines and penalties,	28 00	152 00	180 00
Off and on,	4 69	99 93	104 62
Miscellaneous sales,**	53 92	**28,275 91	28,329 83
Total sales accounts,	$1,708 64	$57,008 93	$58,717 57
Totals due, 1911,	$3,926 94	$401,600 57	$405,527 51

*The amount of $4,187.16 charged during 1911 for "*Water rates—miscellaneous,*" includes:—

Rates for sundry season uses,	$212 48
" " fish tanks and aquariums,	6 00
" " special and temporary uses (circuses, etc).,	26 60
" " main pipe guaranties (committed to Collector December 1, 1910),	1,040 14
" for emergency supply to West Springfield (as per agreements),	2,901 94

**The amount of $28,275.91 charged during 1911 for "*Miscellaneous sales,*" includes:—

Rental of real estate and loan of tools, etc.,	$1,280 08
Shop sales of material and labor (accommodation, only),	4,451 86
Sundry sales (not shop), of wood, sand, grass, manure, etc.,	388 30

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Work for street watering department (construction=none; maintenance=$1,062.24),	$1,062 24
Work for other city departments,	1,025 23
Miscellaneous work for private parties,	1,215 09
Interest for use of Little river funds,	5,400 00
Refund to water-works receipts (from bond funds) of expenditures chargeable to Little river supply "Construction," instead of to "Operating,"	12,138 40
Work for West Springfield emergency supply (as per agreements),	1,314 71

AMOUNTS ABATED TO COLLECTOR, AMOUNTS UNCOLLECTED, AND AMOUNTS COLLECTED AND PAID CITY TREASURER.

COLLECTION ACCOUNTS.	Abated During 1911.	Uncollected Nov. 30, 1911.	Collected During 1911.
Water rates—annual,*	*$2,871 57	$681 03	$85,421 22
Water rates—meter,	903 47	977 67	244,926 02
Water rates—hose and fountains,	37 50	35 00	4,268 50
Water rates—builders,	40 00	110 78	2,325 02
Water rates—miscellaneous,†		95 52	†4,116 64
Total water accounts.	$3,852 54	$1,900 00	$341.057 40
Services and repairs,	$15 46	$762 39	$16,266 01
Meters and repairs,	340 49	408 34	12,310 43
Fines and penalties,	34 00	2 00	144 00
Off and on,	1 00	4 00	99 62
Miscellaneous sales,**	38 71	115 48	**28,175 64
Total sales accounts.	$429 66	$1,292 21	$56,995 70
Totals, 1911,	$4,282 20	$3,192 21	$398,053 10

*Of the total amount ($2,871.57) abated on account of "*Water rates—annual*," $1,944.70 represents *credits*—or draw-backs—allowed for *vacancies*, in accordance with Rule 12 of the Water Commissioners' rules and regulations, and for changes in rates; and $874.87 represents *advance rates* abated because of meters ordered set after bills are committed to the Collector.

†The total amount ($4,116.64) collected for "*Water rates—miscellaneous*" includes $3,901.24 for water sold the Town of West Springfield for emergency supply.

**The total amount collected for "*Miscellaneous Sales*," ($28,175.64) includes $17,538.40 transfer of city cash by City Treasurer to water-works cash, as follows:— $5,400.00, interest for use of Little river bond proceeds by City Treasurer, and $12,138.40, refund of Little river supply "Construction" bills paid from water-works cash.

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RECAPITULATION.

DIVISIONS.	Water Accounts.	Sales Accounts.	Totals.
Amounts collected, 1911, . . .	$341,057 40	$56,995 70	$398,053 10
Amounts uncollected, 1911, . .	1,900 00	1,292 21	3,192 21
Amounts abated, 1911, . . .	3,852 54	429 66	4,282 20
Amounts charged (including balances forward from previous year), 1911, ...	$346,809 94	$58,717 57	$405,527 51

The differences in the *total collection accounts* of 1910 and 1911 are shown as follows:—

COMPARISON: 1910—1911.

	1910.	1911.	DIFFERENCES. 1911.
Amounts collected, . .	$377,297 29	$398,053 10	+$20,755 81*
Amounts uncollected, .	3,926 94	3,192 21	— 734 73
Amounts abated, . .	5,073 68	4,282 20	— 791 48
Amounts charged, . .	$386,297 91	$405,527 51	+$19,229 60

* See note under "Amounts Collected" (previous page).

INCOME—VALUE ACCOUNTS.

The amounts entered on the ledger during 1911 are shown as follows:—

USE OF WATER BY THE CITY.

(*Charged and credited as shown below.*)

Per Section 11, Chapter 32, Revised Ordinances, 1904.

Almshouse and annexed buildings, . .		$390 50
Fire department (buildings), . . .	$726 00	
Fire department (hydrant service); 1,363 fire hydrants (average during year) at $25 each, ...	34,075 00	
		34,801 00
Amount forward, ...		$35,191 50

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Amount forward, . . .		$35,191 50
Forestry department (buildings), . .		50 00
Highway department (city yards, etc.), .	$57 50	
Highway department (building purposes), .	72 05	
		129 55
Municipal building, ...		33 00
Park department (fountains, ponds and hose;—except Forest park), . . .	$632 00	
Park department (park uses at Forest park),	147 50	
		779 50
Police department (buildings), . . .		113 00
Public playgrounds, ...		65 00
Scavenger department and Wayfarers' lodge,		82 00
School department (buildings), . . .		13,161 95
Sewer department (building purposes), .	$61 20	
Sewer department (flushing); 501 flush gates at $10 each, ...	5,010 00	
		5,071 20
Watering streets department: — 506,202 linear feet of streets sprinkled at 1½ cts. per foot, ...		7,593 03
Watering tanks and drinking fountains, .		670 00
Amounts charged, 1911 (*on ledger only*), to "City of Springfield—Special Account," . . (NOTE: Called a resource account in partial offset to liability accounts of city bonds and appropriations.)		$62,939 73
Water department (buildings), amount charged (*on ledger only*) to "Expense," .		122 00
Total credited, 1911 (*on ledger as gain account*), to "Water Rates—City Use," (forward)		$63,061 73

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Amount forward, . . .		$63,061 73

RENTS OF REAL ESTATE.

(Charged and credited as shown below.)

House rental given employees in part payment for services, as follows :—		
Employees' tenements, 131 Bridge street (charged to "**Pay Rolls**"), . . .	$312 00	
Hostler's tenement, 111 Bridge street (charged to "**Teams**"), . . .	156 00	
Keeper's house, Ludlow reservoir (charged to "**Care and Repairs — Ludlow Supply**"),	180 00	
Caretakers' houses, Little river supply (charged to "**Little River Supply — Operating**"), ...	804 00	
Total credited to "**Rents,**"		1,452 00
Total "INCOME—VALUE ACCOUNTS"—1911, . . .		$64,513 73

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Expenditures.—1911.

The following statements show the distribution of the *net cost* of the principal aggregated maintenance and construction accounts during 1911:—

MAINTENANCE.

MANAGEMENT AND REPAIRS.

Salaries (superintendence and accounting),		$14,615 59
Inspection (salaries and expenses),		6,403 85
Engineering (undistributable to specific work or new supply),		6,296 86
Teams (balance undistributable),		2,467 03
Automobiles { 1911 running expenses, $2,502 75; inventory depreciation, 890 00 }		3,392 75
Tools and machines (net loss),		394 56
Stories and supplies (net loss),		60 05
Stationery and printing,		1,208 11
Furniture and fixtures (net loss),		60 71
Heating apparatus (maintaining),		111 37
Lighting apparatus (maintaining),		43 20
Heat and light,		1,148 34
Expense—general (undistributable),		657 06
Expense—city departments (net),		9 62
Expense—office building (janitor, supplies, etc.),		1,247 74
Telephone service,		669 76
Off and on (services, etc.) (net),		422 22
Refunds,		38 61
Frozen services,		30 28
Quality expense (flushing mains, etc.),		43 94
Night service (watchman, etc.),		3,462 70
Meter testing,		358 85
Meter installing (cost borne by city),		1,710 63
Petty maintenance (undistributable),		2,536 45
Yard and storage expense,		2,002 16
Amount forward,		$49,392 44

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Amount forward, . . .			$49,392 44
Sanitation, Ludow supply, . .	$294 63		
Taxes, Ludlow supply, . .	421 10		
Care and repairs, Ludlow supply,	3,021 97		
		$3,737 70	
" " " Chapin pond pumping station, . . .		19 00	
" " " Five Mile pond pumping station, . . .		. . . .	
" " " Loon pond pumping station, ...		75 00	
" " " Stebbins spring property,		23 98	
" " " Ludlow Main No. 1, .		365 88	
" " " Ludlow Main No. 2, .		180 74	
" " " Circuit Main, . . .		14 10	
" " " Distribution mains, cast-iron, ...		496 96	
" " " Distribution mains, wrought-iron, . .		114 33	
" " " Gates and valves, . .		2,766 78	
" " " Hydrants, . . .		4,657 12	
" " " Drinking fountains, .		6 22	
" " " Standpipes, . . .		21 95	
" " " Meters, ...		2,734 04	
" " " Services (ordinary), .		2,171 65*	
" " " Private telephone lines (Ludlow), . . .		72 17	
" " " Indian Leap bridge, .		51 32	
			17,458 94
Amount forward, . . .			$66,851 38

*"Care and Repairs—Services" (*ordinary*) may be analyzed as follows:—

Repairing leaks, ...	$850 56
Putting on pump (small pressure), ...	9 34
Putting new stops inside curb line, ...	.....
Relocating stops, etc., ...	62 48
Cutting off abandoned service, ...	121 10
General care and repairs of stops, valves, pipes, etc., ...	301 60
Raising and lowering stop boxes and cleaning and repairing same, . . .	328 09
Street and walk repairs, ...	221 89
Transferring and changing services, ...	19 58
Improving and maintaining connections, ...	218 39
Care of pressure regulators, ...	39 25
Net cost, 1911, ...	$2,171 65

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Amount forward, . . .		$66,851 38
Care and repairs, No. 111 Bridge street, .	$46 48	
" " " No. 121 Bridge street, .	375 58	
" " " No. 131 Bridge street, .	39 59	
" " " Stable, ...	33 47	
" " " Buildings, Ludlow res'r, .	100 15	
		595 27
Total management and repairs, ordinary (as heretofore), ...		$67,446 65
Little river supply—operating (additional):—		
Borden brook reservoir, operating, .	$5,667 69	
Diversion dam, care and repairs, . .	273 19	
Filtration,—West Parish filters, operating, ...	21,030 22	
General expense, ...	20 04	
Gorge road, care and repairs, . .	59 31	
Pipe line, care and repairs, . . .	685 87	
Provin mountain reservoir, operating,	3,271 58	
Sanitation of supply, ...	2,066 22	
Taxes, ...	307 12	
Telephone lines, care and repairs, .	299 45	
West Parish buildings, care and repairs,	77 55	
		33,758 24
Total, 1911, ...		$101,204 89

INTEREST ON BONDED DEBT.

On Ludlow Supply Bonds:—

$350,000 at 4 per cent., 12 months, . .	$14,000 00	
$125,000 at 3½ per cent, 12 months, . .	4,375 00	
Total on account of Ludlow supply, ...		$18,375 00

On Little River Supply Bonds:—

$530,000 at 4 per cent., 6 months, . .	Twenty $1,000 bonds paid January 1, 1911	$10,600 00	
$510,000 at 4 per cent., 6 months, . .		10,200 00	
Amounts forward, . . .		$20,800 00	$18,375 00

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Amounts forward, . . .	$20,800 00	$18,375 00
$1,458,000 at 3½ per cent., 12 months, ...	51,030 00	
Total on account of Little river supply, . . .		71,830 00*
Total interest paid from water-works receipts of 1911, ...		$90,205 00*

* Of this amount $5,400.00 was received from City Treasuier via November commitment, for interest for use of Little river bond proceeds by City Treasurer.

DISTRIBUTION MAINS—RENEWAL.

(*See Superintendent's report for detail of location, etc.*)

LOCALITY.	PIPE.	SIZE.	COST.
Birnie avenue (see extension, also), .	1,992 feet,	8 inch,	$1,400 00
Bridge street (see extension, also), .	784 "	12 "	600 00
Buckingham street, ...	1,263 "	8 "	1,524 66
Cedar street (account 1910 work), .			185 21
Court street, ...	19 "	12 "	117 05
East Court street (see extension, also),	583 "	12 "	200 00
Lebanon street (account 1910 work),			375 20
Main street, ...	87 "	12 "	249 13
Monroe street, ...	146 "	6 "	288 94
State street, ...	2,288 "	20 "	9,429 06
	472 "	24 "	
Total renewal charged, 1911, ...			$14,369 25

CONSTRUCTION.

DISTRIBUTION MAINS—EXTENSION.

(*See Superintendent's report for detail of location, etc.*)

LOCALITY.	PIPE.	SIZE.	COST.
Applewood avenue, ...	460 feet,	6 inch,	$335 62
Ashmun street, ...	35 "	1½ "	17 09
Birnie avenue (see renewal, also), .	1,992 "	8 "	1,550 62
Blaine street, ...	138 "	2 "	39 67
Bridge street (see renewal, also), .	784 "	12 "	1,331 97
Brooklyn avenue, ...	386 "	6 "	298 24
Brunswick avenue, ...	1,278 "	6 "	843 17
Center street, ...	329 "	6 "	267 55
Chester street, ...	217 "	6 "	238 63
Claremont street, ...	526 "	6 "	398 81

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Clyde street,	125 feet,	6 inch,		$59 93
Crest street,	422 "	6 "		296 09
Cross street (account 1910 work),				75 14
County street,	410 "	6 "		371 55
Cumberland street,	183 "	8 "		239 52
Dickinson street (account 1912 work),				4 50
East Court street (see renewal, also),	583 "	12 "		1,284 83
Eddywoods avenue,	2,148 "	6 "		1,352 54
Eleanor road,	264 "	6 "		292 53
Emily street,	409 "	6 "		332 21
Fairbanks street,	800 "	6 "		621 19
First street,	654 "	6 "		456 65
Fisk avenue,	270 "	8 "		348 74
Foster street,	165 "	6 "		469 24
Franklin street,	40 "	1¼ "		20 55
Goodrich street,	278 "	6 "		206 15
Greenacre square,	77 "	1¼ "		44 10
Hancock street,	94 "	6 "		77 19
Hiawatha street,	327 "	6 "		205 10
Hobson street,	569 "	6 "		348 63
Hollywood street,	111 "	1¼ "		27 08
Irvington street,	206 "	6 "		204 96
Lakeside avenue,	402 "	6 "		358 11
Law street, I. O.,	227 "	2 "		72 97
Liberty street,	437 "	8 "		508 81
Magnolia terrace,	29 "	6 "		35 46
Mansfield street,	477 "	6 "		389 98
Massachusetts avenue,	324 "	8 "		337 65
Maynard street,	173 "	6 "		140 36
Mill street,	1,070 "	6 "		2,053 24
	237 "	8 "		
	623 "	10 "		
Miller street,	653 "	6 "		433 96
New street,	23 "	6 "		83 33
Newbury street,	335 "	6 "		273 21
Noel street,	295 "	6 "		249 20
North street (account 1910 work),				245 48
North Main street,	25 "	12 "		174 08
Nursery street,	155 "	6 "		141 51
Oak Grove avenue,	59 "	2 "		193 79
	193 "	8 "		

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Orlando street,	439 feet,	6 inch,	$293 51
Oxford street,	158 "	6 "	90 53
Plumtree road,	200 "	2 "	1,116 53
	1,674 "	6 "	
Prospect street,	407 "	8 "	443 72
Ridgewood terrace,	121 "	1¼ "	15 36
Rochelle street,	551 "	6 "	407 51
Rogers avenue, I. O.,	38 "	1 "	335 70
	375 "	6 "	
Roseland street,	50 "	6 "	40 63
Rowland street,	625 "	8 "	640 77
Sachem street,	127 "	6 "	130 40
Second street,	655 "	6 "	515 44
Shattuck street,	288 "	6 "	334 33
Spencer avenue,	217 "	1½ "	402 81
	567 "	6 "	
State street (see renewal, also),	2,364 "	4 "	2,306 43
Switzer avenue,	372 "	6 "	299 67
Trinity terrace,	320 "	6 "	240 64
Wait street,	38 "	6 "	33 05
Walter street,	399 "	6 "	319 33
Washington boulevard,	189 "	6 "	153 37
White street,	632 "	8 "	2,305 13
	677 "	12 "	
Woodlawn street,	282 "	6 "	252 59
Woodmont street,	337 "	2 "	109 04
Worcester street, I. O.,	3,369 "	16 "	8,867 54
Worthington court,	285 "	6 "	366 18
Total charged, 1911 (not including circuits),			$38,351 14

"Circuit Mains" (account 1910 work):—		
Forest park section,	$962 72	
Hill section,	2,501 25	
Lower section,	1,009 46	
Mill river crossing,	71 24	
North section,	148 98	
Total "circuit" extension charged, 1911,		4,693 65
Net total main pipe extension charged, 1911,		$43,044 79

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3.—MISCELLANEOUS STATEMENTS.

FINES AND PENALTIES.—1911.

The following statement shows the number of fines and penalties (of $2 each) due, charged, collected, abated, and uncollected, during 1911, the number charged being also the number of premises ordered shut off to enforce payment of overdue accounts:—

DIVISIONS.	For Unpaid Bills.		For Waste Unchecked.	Total Number.
	Due before 1911.	Due in 1911.		
Number uncollected, 1910 (forward),	14	. .	0	14
Number charged during 1911, . .	0	76	0	76
Total charged collector, 1911, .	14	76	0	90
Number collected during 1911, . .	6	66	0	72
Number abated during 1911, . . .	8	9	0	17
Number uncollected, 1911 (forward),	0	1	0	1
Total, as above, ...	14	76	0	90

METERS AND INDICATORS.—1911.

(*For table of same with note, see Appendix III.*)

	Meters.	Indicators.	Total.
Total number in use October 1, 1910, . .	7,485	137	7,622
Total number of meters added to October 1, 1911,	+801	.....	
Total number of indicators discontinued to October 1, 1911, ...	.....	—9	
Net total added to October 1, 1911, . .	.....	.....	+792
Total number in use October 1, 1911, .	8,286	128	8,414

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Total quantity of metered water charged during 1911,	1,859,664,505 gallons.
Average quantity charged per meter or indicator, .	221,020 gallons.
Total amount charged during 1911, ...	$245,845.29
Average amount charged per meter or indicator, .	$29.22+
Average rate charged per 1,000 gallons, . . .	13.22 cents.

INSPECTION.—1911.

The distribution of work done under this head and time spent by the five inspectors on same, during the past year, will be seen by the usual tabulated statement as follows:—

CLASSIFICATION.	Inspectors.					Total Number of Days.
	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	
	Days.	Days.	Days.	Days.	Days.	
Reading and inspecting meters.....	16	178	207	212	176	789*
Inspection of hose use—general	0	8	4	11	10	33
Semi-annual and monthly inspection (billing).....	195	5	0	0	0	200
General or "house-to-house" inspection	0	17	10	9	0	36
Monthly inspection of vacancies reported.....	0	0	30	0	0	30
Special inspection (leaks, bills and collections).....	0	10	5	3	0	18
Special inspection (real estate sales)....	0	0	25	0	0	25
Special inspection of private fire supplies, etc.....	0	0	0	2	28	30
Office work, etc.*.....	82	75	12	56	76	301*
Sickness, etc.....	0	0	0	0	3	3
Total (293 working days in the year, counting Saturdays as full days).	293	293	293	293	293	1,465

During the year 209 cases of leaking fixtures were found on unmetered premises, and the same recorded and the waste caused to be discontinued.

*Meter readings in October omitted and time spent by inspectors in office, re-arranging and re-routing meter accounts.

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OFFICE EMPLOYEES.

During the past year the department has lost a faithful and loyal employee by the death on April 23d of Mr. Frank A. Holden, who had been associated with me in the Registrar's division since 1886 and had been in immediate charge of much of the detail in the billing and recording work of the office for many years.

For more than a year prior to his death he was a constant sufferer and made a brave fight for his work and life.

He was careful and painstaking and devoted to the interests of the water department, and I wish to bear record at this time to his long and faithful service as my assistant and co-worker, and to the pleasant relations with him during his long connection with this department.

The position left vacant by Mr. Holden's death was not filled until September 27th, when Mr. Walter E. Moore was appointed as his successor.

During the past year, owing partly to the foregoing mentioned changes and to attempted changes in the office system (but partially completed), and also to unusual and abnormal conditions arising during the year, additional office employees were engaged to assist in the regular and special work of the department, being appointed temporarily under the sanction of the Civil Service Commission.

I desire to here express my appreciation of the special interest and loyalty manifested by all the office employees and inspectors in their work during the trying year just closed.

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STATISTICS.—1911.

In the appendix to this report will be found the usual table of meters and indicators in use October 1, 1911, the comparative statement showing the classification of consumers supplied at date, together with a summary of statistics for the year, as recommended by the New England Water Works Association.

Respectfully submitted,

A. R. HATHAWAY,

Water Registrar.

SPRINGFIELD, MASS., December 28, 1911.

BOARD OF WATER COMMISSIONERS, December 28, 1911.

Accepted and ordered made a part of the report of the Board to the City Council.

A. R. HATHAWAY, *Clerk.*

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SUPERINTENDENT'S REPORT.

To the Board of Water Commissioners of the City of Springfield, Mass.

GENTLEMEN:—I herewith submit the thirty-eighth annual report of the Superintendent for the year ending November 30, 1911.

The amount of pipe laid, the number of gates and fire hydrants set, the amount of pipe discontinued, and the number of gates and fire hydrants taken out, are shown as follows:—

MAIN PIPE, GATES AND HYDRANTS ADDED—1911.

NUMBER.	Extensions.	Renewals.	Private.	TOTALS.
Feet of pipe laid, 1911,	31,816	9,335	890	42,041
Added,—account of previous years,	252	0	0	252
Total pipe added, 1911,	32,068	9,335	890	42,293
Gates set, 1911,	279	36	48	363
Added,—account of previous years,	3	0	0	3
Total gates added, 1911,	282	36	48	366
Fire hydrants set, 1911,	65	56	0	121
Added,—account of previous years,	0	0	1	1
Total fire hydrants added, 1911,	65	56	1	122

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MAIN PIPE, GATES AND HYDRANTS TAKEN OUT OR ABANDONED—1911.

NUMBER.	TOTALS.
Feet of Pipe, ...	10,706
Gates, ...	82
Fire Hydrants, ...	63

There are now in use 188.87 miles of supply and distribution mains, a net addition of 6.13 miles the past season.

RAINFALL.

The following shows the amount of rain and melted snow in inches, as registered at Ludlow reservoir, the U. S. Armory, and the City Engineer's office in this city, Provin mountain, West Parish filters and Borden brook reservoir, during the year ending November 30, 1911:—

MONTHS.	Ludlow Reservoir.	U. S. Armory.	City Engineer's Office.	Provin Mountain.	West Parish Filters.	Borden Brook Reservoir.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Dec., 1910,	2.02	1.72	1.79	1.95	1.73	2.62
Jan., 1911,	2.62	2.60	2.15	2.58	2.09	1.17
Feb., 1911,	1.91	1.46	1.57	2.28	2.24	2.26
Mar., 1911,	3.47	2.04	3.40	3.78	4.05	4.39
Apr., 1911,	2.04	1.60	2.03	2.14	2.70	2.74
May, 1911,	1.52	1.27	1.37	1.83	1.42	2.07
June, 1911,	1.25	2.81	2.47	2.34	3.36	4.17
July, 1911,	4.49	3.97	3.81	3.92	3.01	3.46
Aug., 1911,	7.33	7.14	6.76	7.17	6.24	6.60
Sept., 1911,	3.68	3.89	3.94	4.35	4.68	5.32
Oct., 1911,	6.97	8.91	8.66	9.26	9.90	8.99
Nov., 1911,	3.35	3.73	3.35	3.52	3.27	3.77
Totals, .	40.65	41.14	41.30	45.12	44.69	47.56
Mean, .	3.39	3.43	3.44	3.76	3.72	3.96

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CONSTRUCTION AND MAINTENANCE.

In compliance with orders from your honorable board, main pipe has been laid in the following named streets during the year of 1911, in sizes of 1″—1¼″—1½″—2″—4″—6″—8″ 10″—12″—16″—20″—24″, the extensions mostly made on guaranteed revenue from owners and abutters, as usual, viz.:—

EXTENSIONS.

Applewood avenue .....northerly from Belmont avenue;
Ashmun street .....extension southerly;
Birnie avenue.....between Medford and Hooker streets;
Blaine street.....easterly from Brunswick avenue;
Brooklyn avenue.....southerly from Sumner to Brunswick avenue;
Brunswick avenue.....westerly from Brooklyn avenue;
Center street.....northerly from Oak Grove Park roadway;
Chester street.....extension to Mill street;
Chestnut street, I. O. .....to connect to new 16″;
Claremont street.....southerly from Orange street;
Clyde street.....extension westerly;
County street.....Berkshire avenue to Switzer avenue;
Crest street.....Lakeside avenue westerly;
Cumberland street.....extension to North street;
Eddywoods avenue.....Sumner avenue to Plumtree road;
Eleanor road.....westerly from White street;
Emily street.....northerly from Switzer avenue;
Fairbanks street.....northerly from Allen street;
First street.....from Ludlow Main No. 2, southerly to Second street;
Fisk avenue.....Abbe avenue to Rowland street;
Foster street.....extension to Knox street;
Franklin street.....between Webster and Vinton streets;
Goodrich street.....westerly from Liberty street;
Greenacre square.....northerly from present 6″ on east roadway;
Hancock street.....completion to Mill street;
Hiawatha street.....easterly from Whittier avenue;
Hobson street.....southerly from Berkshire avenue;
Holly street, I. O......to connect with new 16″;
Hollywood street.....easterly from Dickinson street;
Irvington street.....extension of present 6″;
Lakeside avenue.....extension of present 6″;
Law street, I. O......northerly from Falmouth avenue;
Liberty street.....from Armory to present 8″;
Magnolia terrace.....extension to Washington boulevard;
Mansfield street.....easterly from White street;
Massachusetts avenue.....extension of present 8″;
Maynard street.....extension to State street;
Mill street.....Dickinson street to near Central street;
Miller street.....easterly from Armory street;
New street.....northerly from East Court street;
Newbury street.....extension to opposite last house;
Noel street.....easterly from Mill street;
North Main street.....extension of present 12″;
Nursery street.....southerly from Franklin street;
Oak Grove avenue.....south of Acorn street;
Orlando street.....extension to Belmont avenue;
Oxford street.....extension southerly of present 6″;
Plumtree road.....easterly from Eddywoods avenue;
Prospect street.....Massasoit street to Narragansett street;
Ridgewood terrace.....northerly from Mulberry street, abandoned pipe restored;
Rochelle street.....extension of present 6″;
Rogers avenue, I. O......southerly from Main street, I. O.;
Roseland street.....extension of present 6″;
Rowland street.....Plainfield street to Fisk avenue;
Sachem street.....extension of present 6″;
Second street.....from First street northerly to Ludlow Main, No. 2;

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Shattuck street	Oak Grove avenue to College street;
Spencer avenue	Sumner avenue to railroad;
State street	Hawley street to Oak street;
Switzer avenue	Emily street to east of County street;
Trinity terrace	extension of present 6″;
Wait street	extension of present 6″;
Walter street	westerly from North Main street;
Washington boulevard	westerly from Magnolia terrace;
White street	Priscilla place to Longfellow terrace and from No. 382 to Sumner avenue;
Woodlawn street	southerly from Belmont avenue;
Woodmont street	westerly from Liberty street;
Worcester street, I. O.	Myrtle street to Fiberloid Co.;
Worthington court	southerly from Worthington street.

RENEWALS.

Birnie avenue	Alfred street to Portland street and Medford street to Sheldon street;
Bridge street	Main street to Water street;
Buckingham street	State street to Bay street;
Court street	at Water street;
East Court street	Main street to Dwight street;
Hawley street	southerly from State street (not completed);
Main street	at Longhill street;
Mill street	westerly from Central street 467 feet;
Monroe street	westerly from Hawley street;
Oak street	southerly from State street (not completed);
Orleans street	southerly from State street (not completed);
Pleasant street	northerly from State street (not completed);
State street	Federal street to Westminster street (E);
St. James avenue	northerly from State street (not completed);
Stebbins street	southerly from State street (not completed);
Terrence street	southerly from State street (not completed);
Walter street	easterly from Birnie avenue;
Westminster street	northerly from State street (not completed).

In the foregoing work nearly 32,000 feet of main pipe were laid at a cost of about $38,000. This includes ordinary extensions with gates, hydrants and connections, and in addition there were laid over 9,000 feet of main pipe replacing old, at a cost of about $14,000, which also includes gates, hydrants and connections.

The different streets in which all the above pipe has been laid, with the cost of each, will appear in tables in the Registrar's report. The pipe work and changes during the year are shown separately in tables in Appendix VI to this report.

As will be seen by the above, we have replaced nearly two miles of the cement-lined mains which were remaining at the beginning of the year, and shall hope to do the remainder the coming season. These, with the exception of State street, from Federal street to Thompson, have all been replaced with larger mains, the latter being replaced by a 20″ in place of a 24″

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which was not needed in that street on account of its intimate connection with the circuit main across the hill.

Included in the above mentioned extensions is one of 3,369 feet of 16″ main pipe in Worcester street, I. O., from the Fiberloid Company's plant to Myrtle street, connecting the Ludlow Mains Nos. 1 and 2, and thus providing Indian Orchard with a second means of supply from Little river and obviating the necessity of turning on the Ludlow supply in case repairs are needed on either of the supply lines between Indian Orchard and the city proper.

New hydrants have been installed more frequently than before, thus improving the fire protection materially wherever the replacement work has been accomplished. In all 121 new hydrants have been installed, of which 65 are additional and 56 replacements.

We have also installed 363 new gates in the system, of which 327 are additional and 36 replacements.

During the year 682 new taps for service pipes have been made, including 193 renewals, and making 489 additional. 49 have been abandoned, leaving a net total increase of 440. The total number now connected with the system is 12,985.

Maintenance is all of routine nature and the past year has been no exception to the rule. There have been a great many leaks in service pipes, generally attributable to the increased pressure due to the high service and the Little river supply, and these will continue to be a source of annoyance until all the old light lead pipes formerly connected to the Van Horn system have been eliminated. There have been 113 such leaks repaired this year, at a cost of $850.58, an average of $7.53 per leak.

There have also been 32 leaks in main pipes repaired, an average of 0.17 per mile of main pipe in use. The following tabulation shows the kind and sizes of pipe in which the leaks occurred:—

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KIND AND SIZE OF PIPE.	2"	3"	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"	42"	Totals
Steel, ...	....	....	....	....	....	....	....	....	....	....	....	....	1	1
Cast-iron, . .	....	....	1	8	7	3	3	2	....	1	2	....	1	28
Cement-lined, .	....	....	....	....	....	....	....	....	....	3	...	....	....	3
Total leaks, .	....	....	1	8	7	3	3	2	....	4	2	....	2	32

The total cost of repairing such leaks was $609.67, an average of $19.05 per leak.

The only break of any moment during the last year was in Bancroft street just east of North street, which occurred on the night of October 12th. The break was in one of our light, low service, 6" mains, and was fed directly from two directions by a 10" and 12" main closely connected with the 36" main in Jefferson avenue. In consequence it caused a large washing out of the street and necessitated closing the same for a few hours. It was repaired at a cost of $61.03, which cost is included in the above average of the cost of main pipe leaks.

Hydrants have all had a general overhauling the past year, stuffing boxes packed and lubricated and otherwise generally repaired, and are now in good working condition. They still are used indiscriminately by the Street and Sewer departments, and in consequence are subject to repairs more frequently than they ought to be, and my recommendation of the last two years is still applicable and it is hoped may soon be put into effect.

Many dead ends have been eliminated from the system during the past year, and others have been flushed out periodically or whenever necessary.

CHANGE IN HYDRANT HOSE-CONNECTIONS.

The change in hydrant hose-connections, which was ordered last year and referred to in my last report, was accomplished early in the year with very little annoyance to the Fire depart-

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ment, and has afforded great satisfaction to all who have anything to do with the use of the hydrants. There is now no trouble from leaky couplings and no delay in making connections with the hydrants at a fire, and on our part no trouble in getting exact duplicates when ordering new hydrants.

The net cost of making the change above mentioned was a trifle under $3,900, including cost of labor, which was performed by some of the permanent men of the department and amounted to about $1,000. If this is deducted from the above, the actual cost of the change would be under $3,000.

The real estate on Bridge street is in good condition and the cost of such repairs as have been necessary will appear in detail in the Registrar's report.

METER WORK.

The following meters have been set during the year ending November 30, numbering a total of 752:—

Crown	17
Empire	1
Hersey Disc	134
Hersey Rotary	5
Hersey Detector	9
Keystone	163
Lambert	27
Nash	115
Thomson	1
Trident	117
Trident Compound	3
Worthington Disc	160

Besides the above, about 1,650 old meters have been repaired, making approximately 2,400 meters handled during the year.

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Arrangements have been perfected to proceed with the installation of meters on every unmetered service pipe in the city, in accordance with your orders to the Superintendent of June 6th, last, and the work is now under way. There are upwards of 3,500 meters to be set, and it is hoped to install a large proportion of them the coming year.

INVENTORY.

The appraisal of stock, tools, supplies, fixtures, etc., in the Superintendent's division, on hand November 30, 1911, amounted to $95,720.18, distributed to sundry accounts as shown in the Registrar's report.

STATISTICS.

In the appendix to this report will be found the usual tables showing the size and location of pipe laid, gates and hydrants set, pipe, gates and hydrants taken out, also location of fountains, watering tanks, fire hydrants, standpipes, and main and distribution pipes.

Respectfully submitted,

ALFRED E. MARTIN,

Superintendent.

SPRINGFIELD, MASS., December 28, 1911.

BOARD OF WATER COMMISSIONERS, December 28, 1911.

Accepted and ordered made a part of the report of the Board to the City Council.

A. R. HATHAWAY, *Clerk.*

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CHIEF ENGINEER'S REPORT.

DECEMBER 28, 1911.

To the Board of Water Commissioners of Springfield, Mass.

GENTLEMEN:—With the close of the second year in which the water from the new supply has been used, a great deal of information has been obtained. It has been possible to take up the question of economy of operation which in the first year with a new supply and an entire force new to its possibilities, would have been quite difficult, if not impossible. The year has been one remarkable for its dry season. Very few of the supplies of this vicinity have passed through the year without the necessity of serious restrictions on the use of water or the definite knowledge that danger of shortage could only be diverted by help from neighbors or very heavy rains. While this condition was improved for the entire region by the very heavy rains of the late summer, the period immediately preceding these rains furnished an opportunity for testing the possibilities of the supply.

On the first day of 1911, following the dry season of 1910 there remained in the Borden Brook reservoir 774 million gallons, or 32 per cent of the entire capacity. From this time, the natural flow of the stream furnished the entire supply for the city until July 1st, exactly six months, on which date it became necessary to draw from storage to secure the amount necessary for the city's supply and during a portion of the time for West Springfield. On June 26th, the reservoir reached the highest level, due to the usual spring high water flow, when 2391 million gallons, substantially 96 per cent of the total capacity, was held in storage. From July 1st until August

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27, 1911, when the lowest stage for the past season was reached, 1991 million gallons, or 80 per cent of the total capacity of the reservoir, remained in storage. The total net amount drawn from storage for the summer dry season of 1911 was 400 million gallons. From this latter date until October 19th, when the reservoir filled to overflowing, there was a constant gain in the amount held in storage. Since that time it has not been necessary to draw from storage for any portion of the supply and all amounts drawn have been wasted.

BORDEN BROOK OVERFLOW.

The Borden Brook reservoir is so constructed that the surplus water is carried off over an overflow at some distance from the dam, and through a channel fifty feet in width and thirty feet in depth, to a point where it joins the stream at some distance below the dam. As the construction of the dam raised the elevation of the water substantially seventy feet, the overflow channel conducts this water over this fall in a short distance. Following the heavy rains which began on October 17th, the reservoir rose rapidly until a total of 412 cubic feet per second passed through this overflow, in addition to having filled the last vertical foot over the entire reservoir area. This flow of water cut out a large channel, washing large quantities of earth, sand and rock into the stream below. Following this high water, a study was made of the rock conditions in this overflow, and while it is in no way probable, inasmuch as the entire overflow rests entirely on ledge, that any damage to the reservoir could come from such a flood, it was thought best to protect the banks and to confine such overflow to its own channel by putting in a retaining wall along the edge of the overflow channel below the reservoir. To accomplish this, a concrete wall has been constructed along the north side of the overflow for a distance of seventy-seven feet, the wall resting on bed rock from fourteen to seventeen

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feet below the surface, thus absolutely insuring the confinement of the overflow waters to their own channel.

PROVIN MOUNTAIN RESERVOIR.

The contract for the construction of the Provin Mountain reservoir did not call for any guarantee of tightness, as it was believed that in a large reservoir of this kind, it would be better to insist upon good workmanship, and following the natural contractions due to the temperature change of the seasons, that it would be more economical and more satisfactory to make studies of such leakages as would result and repair them under our own personal direction. Accordingly, when it was felt that the maximum contractions had been obtained, the water was shut off from the Little River system and the city supplied with Ludlow water. The time occupied in making these repairs necessitated the use by the city of Ludlow water from February 11th to April 11th. During this time, the work of stopping all openings with concrete was carried on and as a result the leakage was very largely eliminated. Following this work there has been no further trouble from leakage at this reservoir.

WEST PARISH FILTERS.

The operation of the filtration system has been very satisfactory during 1911. During the first year of operation, as outlined in the report of a year ago, it was frequently necessary to employ three shifts of men in order that the work could be carried on twenty-four hours per day. During the past year, with an equal amount of water used, it has not been necessary to use but one eight-hour shift, and there has never been a time that the capacity could not have been quickly raised to meet any emergency. The sanitary quality of the water has been excellent at all times.

Considerable grading has been done about the filtration

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plant and in many ways the grounds have been improved. The road through the gorge has been completed so that it is now possible for any one to visit all of the works of the Little River system easily and it is hoped that all interested in the city's water supply will find it possible at some time to go over the system.

Mr. H. F. Salmonde succeeded Mr. C. N. Harrub as chemist of the plant on October 17th, 1911. Mr. E. C. Cotton has continued as superintendent throughout the year.

A complete record of the chemical and bacteriological analyses is taken daily in the laboratory as an aid to the securing of uniform operation. These analyses may be found in Appendix XVII, which is made a part of this report. The State Board of Health have also made monthly analyses of the water from all parts of the supply and the result of these analyses is given in Appendix XVIII.

In the operation of the filter the largest item of expense is the removing of the impurities taken from the water by the top layer of sand within the filter beds. This process requires the removal of about 135 cubic yards of sand following the filtration through any one bed of about fifty million gallons. This sand is removed hydraulically and following washing to secure the removal of the mud and impurities, the clean sand is deposited in the sand court for later replacement within the filters. This system has been extended during the year, so that now all sand is handled hydraulically, including the removal of the dirty sand, washing, storing and the returning of the washed sand to the filters. The extension of this process and the improvement of the equipment has resulted in a considerable saving during the year. An analysis of the cost of filter operation is given in full in Appendix XXI.

USE OF WATER.

Many interesting facts may be obtained by a study of the

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records of the consumption of water by the city. The daily use of water in the city as recorded by the Venturi meter is given in Appendix XIX. Water used by other towns, etc., is given in Appendix XX. The total amount of water used during 1911 was not materially larger than the use in 1910. Pipe lines are designed not to carry water at the rate of the daily use but to deliver this water under full pressure at the rates needed during the time of maximum use. There is a variation in the amount of water needed, according to the season and also according to the time of day. The following table gives a few of these results and indicates something of the varying conditions of the city supply which must be met.

Total amount of water used by City of Springfield during 1911,	gallons,	3,847,830,000
Average use per day,	"	10,542,000
Per capita daily, basis, 92,003 population,	"	115
Maximum use per day, July 3rd,	"	14,910,000
Minimum use per day, Thanksgiving day, Nov. 30th,	"	6,630,000
Maximum rate at which water was used,	"	24,000,000
Minimum rate at which water was used,	"	2,200,000

All of the figures given are strictly on the basis of the use in the city of Springfield alone. In addition to this water was supplied in whole or in part to the town of West Springfield from July 10th to 21st inclusive, and from August 15th to 29th inclusive, a total of 16,320,000 gallons being thus furnished, or an average of 604,000 per day, over the period indicated.

No water has been supplied from the Little River system to the town of Ludlow during the year on account of the inferior quality of the Ludlow water. The systems have been connected at times of a test and repairs at the Provin Mountain reservoir, but not in the same manner as during the year previous when it was necessary to supply filtered water to the town of Ludlow for a considerable period.

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Many of the damage cases resulting from the construction of the Little River supply have been settled so that the cases now pending are but a small fraction of the total. Much time has been given to the damages arising from the taking of water power and it is believed that another year will find many of these adjusted.

The caretakers at the reservoirs, Mr. J. K. Burbank at Provin Mountain, Mr. J. M. Justin at Borden Brook and Mr. Burt Hurlburt at Ludlow have served acceptably through the year. It is to them as well as to the superintendent and chemist at the filters, already referred to, and to Mr. L. G. Carlton as principal assistant, with their helpers, that credit is due for the co-operation which has made the successful and continued uniform operation of the plant a possibility. I would also acknowledge the helpful interest of your Board which has always been ready to take up thoughtfully the problems as they have arisen, insuring the interest which has made the work of the entire department harmonious.

Respectfully submitted,

ELBERT E. LOCHRIDGE,

Chief Engineer.

Board of Water Commissioners, December 28, 1911.

Accepted and ordered made a part of the report of the Board to the City Council.

A. R. HATHAWAY, *Clerk.*

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APPENDIX.

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APPENDIX I.

COMPARATIVE STATEMENT OF WATER RECEIPTS SINCE 1885.

(On annual basis of twelve months.)

Year.	Water Rates Charged. (*During the year, only*)		Water Rates Collected. (*Including balances forward.*)	
	Totals.	Difference.	Totals.	Difference.
1885	$93,421 60	. . . . .	$90,848 05	. . . . .
1886	100,537 77	+$7,116 17	97,298 78	+$6,450 73
1887	108,140 94	+ 7,603 17	105,451 52	+ 8,152 74
1888	115,146 35	+ 7,005 41	112,581 21	+ 7,129 69
1889	126,220 72	+11,074 37	122,541 52	+ 9,960 31
1890*	133,553 28	+ 7,332 56	129,913 27	+ 7,371 75
1891	140,604 85	+ 7,051 57	136,985 11	+ 7,071 84
1892	150,515 67	+ 9,910 82	146,349 09	+ 9,363 98
1893	164,894 65	+14,378 98	160,936 78	+14,587 69
1894	167,376 11	+ 2,481 46	162,769 71	+ 1,832 93
1895	182,357 49	+14,981 38	178,421 15	+15,651 44
1896	194,069 28	+11,711 79	189,373 75	+10,952 60
1897	196,818 72	+ 2,749 44	192,132 58	+ 2,758 83
1898	209,183 12	+12,364 40	201,710 66	+ 9,578 08
1899	220,673 14	+11,490 02	213,061 24	+11,350 58
1900	225,798 96	+ 5,125 82	218,741 57	+ 5,680 33
1901*	233,227 98	+ 7,429 02	218,815 05	+ 73 48
1902*	231,594 98	— 1,633 00	223,903 08	+ 5,088 03
1903	245,358 59	+13,763 61	238,673 13	+14,970 05
1904	249,779 77	+ 4,421 18	244,767 77	+ 6,094 64
1905	259,133 06	+ 9,353 29	252,747 50	+ 7,979 73
1906*	263,746 17	+ 4,613 11	260,186 99	+ 7,439 49
1907*	267,263 78	+ 3,517 61	255,109 17	— 5,077 82
1908*	293,896 28	+26,632 50	291,108 15	+35,998 98
1909	302,230 17	+ 8,333 89	298,449 48	+ 7,341 33
1910	327,333 58	+25,103 41	322,845 84	+24,396 36
1911	344,591 64	+17,258 06	341,057 40	+18,211 56

☞ For amounts abated and uncollected, see detail in Registrar's report.

*See explanatory notes in annual reports for years indicated.

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APPENDIX II.

SERVICE TAPS AND SUPPLY AND DISTRIBUTION MAINS SINCE 1884.

Year.	Service Taps.		Distribution Mains.		Supply and Distribution Mains in Use. (Miles.)
	Total Number.	Net Increase.	Extensions. (Feet.)	Cost of Extensions.	
1885	4,237	224	10,014	$11,235 33	75 01
1886	4,519	282	18,993	14,158 71	78 65
1887	4,819	300	17,244	14,600 36	81 55
1888	5,147	328	13,877	14,038 56	84 97
1889	5,497	350	29,059	26,418 94	91 11
1890	5,770	273	9,962	7,833 06	92 28
1891	6,181	411	14,927	10,396 00	94 86
1892	6,633	452	24,853	16,253 21	98 63
1893	7,000	367	25,079	17,090 71	102 97
1894	7,482	482	20,280	13,491 16	117 21*
1895	7,900	418	32,368	25,302 47	123 65
1896	8,298	398	23,521	21,018 62	127 80
1897	8,721	423	39,108	22,349 41	134 71
1898	9,070	349	28,810	16,042 36	140 08
1899	9,456	386	20,851	10,069 22	143 21
1900	9,764	308	9,880	6,362 20	144 69
1901	10,034	270	8,668	5,174 62	146 22
1902	10,221	187	5,353	3,060 71	147 34
1903	10,471	250	16,425	13,147 42	150 44
1904	10,641	170	9,767	6,163 18	152 20
1905	10,946	305	20,309	17,290 22	154 67
1906	11,175	229	17,027	24,054 14	156 84
1907	11,385	210	20,099	114,117 98**	160 42
1908	11,706	321	19,047	72,635 91**	161 85
1909	12,134	428	30,177	111,153 39**	174 87*
1910	12,545	411	45,520	152,570 23**	182 74
1911	12,985	440	31,816	43,044 79**	188 87

* The total of 117.21 miles of main and distribution pipe at end of 1894 includes 10.86 miles of "Ludlow Supply Main No. 2," laid in 1893 and 1894; and the total of 174.87 miles at end of 1909 includes 13.29 miles of "Little River Supply" pipe, laid in 1908-1909-1910.

** Amounts include *extension-cost* of "Circuit" mains, as follows:—1907=$93,911.77; 1908=$26,776.96; 1909=$91,900.00; 1910=$121,039.43; 1911=$4,693.65; leaving following balances for ordinary and improvement extensions:—1907=$20,206.21; 1908=$45,858.95; 1909=$19,253.39; 1910=$31,530.80; 1911=$38,351.14.

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APPENDIX III.

TABLE OF METERS AND INDICATORS.

(In use October 1, 1911.)

☞ NOTE:—Only those meters are here included which show some registration charged for during the last quarter of the fiscal year, viz.: the 3 months preceding Oct. 1.

KIND AND SIZE.	½″ or ⅝″	¾″	1″	1¼″	1½″	2″	3″	4″	6″	8″	Indicators.	Totals.
Meters.												
Ball & Fitts Piston,	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Crest,	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Crown,	1,052	638	96	.....	49	63	30	20	5	.....	.....	1,953
Desper,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Empire,	1	3	16	.....	20	12	5	3	1	.....	.....	61
Gem,	.....	.....	.....	.....	.....	.....	.....	3	1	.....	.....	4
Hersey Detector,	.....	.....	.....	.....	.....	.....	1	3	14	2	.....	20
Hersey Disc,	1,017	494	89	.....	3	1	.....	.....	.....	.....	.....	1,604
Hersey Rotary,	239	294	22	.....	22	16	8	10	2	.....	.....	613
Keystone,	253	186	41	3	12	15	7	.....	.....	.....	.....	517
Lambert,	74	45	18	.....	1	.....	.....	.....	.....	.....	.....	138
Nash,	1,208	761	244	.....	10	.....	1	.....	.....	.....	.....	2,224
Thomson,	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
Trident,	484	210	62	.....	3	3	.....	.....	.....	.....	.....	762
Trident Compound,	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2
Union Rotary,	48	16	2	.....	1	1	.....	.....	.....	.....	.....	68
Worthington Disc,	256	33	11	.....	.....	.....	.....	.....	.....	.....	.....	300
Worthington Piston,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Worthington Turbine,	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	2
												8,286
Indicators.												
Desper.....(for elevators)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	115	
Friction ..... (" ")	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	
Graves..... (" ")	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	
Ross..... (" motors)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	128
Whitney ..... (" ")	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	
Whittier..... (" elevators)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	
Worthington (" ")	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	
Totals, 1911,	4,641	2,688	601	3	121	111	54	40	23	4	128	8,414

Net addition to above table during year to October 1, 1911=792.

Total meters *set* during *work-year* ending November 30, 1911 (as shown in Superintendent's report)=752.

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APPENDIX IV.

COMPARATIVE STATEMENT,

SHOWING THE CLASSES OF CONSUMERS AND THE NUMBER OF EACH CLASS SUPPLIED BY THE AQUEDUCT COMPANY IN 1864, AND BY THE CITY IN 1874, 1880, 1890, 1900, 1910, AND 1911.

CLASSES.	1864.	1874.	1880.	1890.	1900.	1910.	1911.
Bakeries	.....	.....	8	15	36	55	58
Banks	2	9	12	15	16	10	10
Barber Shops	2	14	3	30	85	128	132
Baths	.....	439	829	2,654	8,777	17,080	18,909
Beer Pumps	.....	.....	.....	.....	67	91	91
Boarding Houses	.....	33	55	97	77	96	94
Breweries	.....	.....	2	2	2	3	3
Cemeteries	.....	.....	1	5	6	6	6
Churches (from 1895)	.....	.....	.....	.....	39	60	59
Churches, Halls, and Public Buildings (to 1895)	2	12	14	60	.....	.....	.....
Clubs, Societies, etc. (from 1897)	.....	.....	.....	.....	34	37	37
Dyehouses and Bleacheries	2	2	3	3	4	5	4
Elevators	.....	.....	15	96	154	265	301
Families	1,288	3,637	4,893	8,511	15,179	22,748	24,241
Fish Tanks and Aquariums	.....	.....	.....	8	10	10	10
Foundries	4	5	6	12	13	18	17
Fountains (private)	.....	.....	12	18	9	9	9
Fountains (public)	.....	.....	.....	10	14	17	16
Garages (public) (from 1908)	.....	.....	.....	.....	.....	12	13
Gas Works	.....	.....	1	1	1	1	1
Greenhouses	2	3	9	8	24	28	28
Halls (from 1895)	.....	.....	.....	.....	53	77	78
Hose	.....	.....	885	1,857	3,827	6,163	6,746
Hotels	7	12	15	20	19	18	19
Laundries (public)	.....	6	6	25	41	40	42
Manufactories	6	50	80	78	79	89	90
Markets	8	31	54	60	105	130	131
Motors	.....	.....	13	44	76	94	91
Offices and Rooms	.....	88	521	1,088	1,834	3,258	3,334
Parks (from 1895)	.....	.....	.....	.....	13	16	16
Photographers	.....	6	9	11	11	18	18
Printers and Publishers	.....	.....	.....	25	25	32	31
Public Buildings and Institutions (from 1895)	.....	.....	.....	.....	27	30	30
Public Institutions (to 1895)	.....	.....	.....	6	.....	.....	.....
Railroads	.....	.....	3	4	4	4	4
Restaurants	5	14	17	24	49	97	102
Saloons	9	34	32	45	44	54	56
Schools (total to 1897)	.....	12	15	33	.....	.....	.....
Schools (private) (from 1897)	.....	.....	.....	.....	14	14	14
Schools (public) (from 1897)	.....	.....	.....	.....	32	35	36
Shops	18	51	88	189	333	463	483
Slaughter Houses	.....	.....	.....	1	.....	.....	.....
Stables (private)	82	274	379	704	1,260	1,390	1,388
Stables (public)	6	14	23	30	31	20	20
Steam Engines	.....	.....	48	74	116	121	120
Steam Heaters	.....	.....	32	104	806	1,345	1,545
Stores	125	225	320	359	693	1,044	1,132
Street Railways (from 1895)	.....	.....	.....	.....	1	1	1
Urinals	.....	131	296	435	560	729	770
Water Closets	.....	1,192	2,402	6,792	16,958	29,244	31,767
Watering Tanks and Drinking Fountains	.....	.....	.....	12	14	19	18

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APPENDIX V.

SUMMARY OF STATISTICS
For the Year Ending November 30, 1911.

In form recommended by the New England Water Works Association.

SPRINGFIELD WATER WORKS,
City of Springfield, Hampden County, Massachusetts.

GENERAL STATISTICS.

Population of Springfield by U. S. census of 1910, . 88,926
Estimated population of Springfield for 1911, . . 92,003
Dates of construction:—
Original works in city, by private company, 1864
(Sale of same to city, for $238,296.00, in 1872.)
Works at Ludlow, Mass., . . . 1873–1874–1875
Works at Belchertown, Mass., ... 1890–1891
Additional main from Ludlow reservoir, . . 1893–1894
New supply from Westfield Little River, . 1907–1910
By whom owned, ... City of Springfield
Source of supply (a) used by Springfield (filtered and metered) :—
From Westfield Little River, storage capacity as follows :—
Borden brook reservoir, . . . 2,500,000,000 gallons
Intake reservoir, ... 40,600,000 gallons
Sedimentation basin, ... 38,700,000 gallons
Provin mountain reservoir (*filtered*), . 17,000,000 gallons
Total, ... 2,596,300,000 gallons
Source of supply (b) used by adjoining town of Ludlow and portion of Wilbraham (unfiltered and unmetered) :—
☞ *See note under "Consumption."*
From impounding reservoirs in Ludlow and Belchertown (fed by natural streams, springs and surface water); storage capacity:—
Total, ... 1,434,218,000 gallons
(Aggregate storage capacity, 4,030,518,000 gallons.)
Mode of supply, ... by gravity
Auxiliary supply (emergency), by pumping from Chapin, Five Mile, and Loon ponds.
Total pumpage during emergency season of 1911, . . none

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FINANCIAL STATISTICS.

(NOTE.—All expenditures, including ordinary extensions of mains, etc., are made from general receipts—from water rates, sales, etc.—but the *amount* of such expenditure is annually determined by the City Council.)

RECEIPTS (*credited*)—1911.

Balance brought forward:—			
(*a*) From ordinary (maintenance) receipts (see disposition of same),			
Inventory of material, tools, etc., on hand Nov. 30, 1910,		$57,813 98	
(*b*) From extraordinary receipts (bonds, etc.), for Little river supply fund, Nov. 30, 1910,		268,321 05	
Net total (forward from 1910),			$326,135 03
From Water Rates:—			
A. Fixture rates,		$96,131 38	
B. Meter rates,		244,926 02	
C. Total water rates from consumers (*income-cash*),			341,057 40
D. For fire hydrants, average 1,363 @ $25.00 each,		$34,075 00*	
E. For public fountains, etc. (in parks),		632 00*	
F. For street watering,		7,593 03*	
G. For public buildings and departments (including $122.00 for water department buildings,—charged to "Operation" account under expenditures),		14,948 45*	
H. For miscellaneous public uses:—			
(*a*) Flushing sewers, 501 flush gates @ $10.00 each,	$5,010 00*		
(*b*) Watering tanks and drinking fountains,	670 00*		
(*c*) Building purposes (sewers and streets),	133 25*		
		5,813 25*	
I. General appropriation (for water),			
J. Total from municipal departments (*income-value*),			63,061 73*
K. *From tax levy* (for extensions, etc.),			
L. *From bond issue* (for construction, etc.),			
From sundry sales (account construction of new supply), reversion to Little river fund,		$190 10	190 10
M. *From other sources:*—			
(*a*) **From consumers for services, meters, repairs, sales, penalties, etc.** (*income-cash*),		$56,995 70	
(*b*) **From water department employees for house rentals allowed in part payment for services,**—charged to "Operation" accounts under expenditures (*income-value*),		1,452.00*	58,147 70

EXPENDITURES (*charged*)—1911.

Water Works Maintenance:—			
AA. Operation (management and repairs):—			
(*a*) Ordinary—(as heretofore),		$67,446 65	
(*b*) Little river supply operating (additional),		33,758 24	$101,204 89
BB. Special:—			
(*a*) Distribution mains, renewal,		$14,369 25	
(*b*) Distribution system improvement (not easily separable to street accounts),		2,646 86	
(*c*) Damages (broken mains, etc.),		11,105 16	
(*d*) Ludlow Main No. 2 (lowering),		2,065 52	
(*e*) Hydrants (changing nozzles),		3,961 43	
(*f*) **Miscellaneous,**		1,219 93	35,368 15
CC. *Total maintenance charged* 1911 (*see analysis*),			$136,573 04
DD. Interest on bonds,			90,205 00
(CC+DD=$226,778.04.)			
EE. Payment of bonds (for new supply), (old supply bonds paid from sinking fund)			20,000 00
FF. Sinking fund (see "MM BALANCE"),			
Water Works Construction:—			
GG. Extension of mains (*streets*),	$38,351 14		
Extension of mains (*circuits*),	4,693 65	$43,044 79	
HH. Extension of services (paid for by consumers;—see "M" and "LL"),			
II. Extension of meters (paid for by consumers;—see "M" and "LL"),			
JJ. Special (*ordinary*):—			
(*a*) Hydrants—extension,	$1,630 69		
(*b*) Gates and valves—extension,	3,973 33		
(*c*) Miscellaneous,	1,461 50	7,065 52	
Total construction charged 1911 (*ordinary and improvement*),			$50,110 31
Less amounts *credited* 1911 to construction accounts of previous years, for sales, etc.,			316 19
Net construction charged 1911 (*ordinary and improvement*),			$49,794 12
JJ. Special (*extraordinary*):— Little river supply (*from bond proceeds*),			78,383 21

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N.	Total credited (including inventory forward),	$788,891 96

Analysis of Receipts (*credited*)—1911.

From "Income—*cash*" accounts (collected),	$398,053 10	
From "Income—*value*" accounts (credited),	64,513 73*	
Total income (collected and credited),	$462,566 83	
From Bond issue and sales (for new supply),	190 10	
Total,		$462,756 93

Analysis of Expenditures (*charged*)—1911.

Accounts Charged, 1911.	Net Totals *Charged*, During 1911.	From Bond *Proceeds*, 1911. — New Supply.	From Water Works *Value* Income, 1911.	From *Nov.* Approved Accounts 1910–1911, Paid from next Year's Receipts—(*Net*).	From Water Works *Cash* Income, 1911.
Maintenance,—cost,	$136,573 04	.....	$1,574 00*	+$1,733 50	$136,732 54
Interest, paid,	90,205 00	.....	.....	.....	90,205 00
Bonds, paid,	20,000 00	.....	.....	.....	20,000 00
Construction,—cost,	128,177 33	$78,383 21	.....	+5,221 75	55,015 87
Sales,—cost,	46,683 56	.....	.....	—7,895 11	38,788 45
Totals,	$421,638 93	$78,383 21	$1,574 00*	—$939 86	$340,741 86
Inventory, ... ($47,873 79)=(1911 increase)				—515 51	47,358 28
Totals, ... ($389,555 51) = {W. W. accts. approved 1911, plus interest and bonds paid}				—$1,455 37	= $388,100 14

KK.	*Net aggregate construction charged* 1911 (*see analysis*),		$128,177 33
	Water Works "Sales," etc.:—		
LL.	Unclassified expenses:— Cost of labor and material charged to consumers, for services, meters, repairs, sales, etc. (see "M," "HH" and "II") (*see analysis*),		46,683 56
	Net total expenditures *charged* 1911 (for work, etc., including interest and bond payments) (*see analysis*),		$421,638 93
MM.	BALANCE:—		
(*aa*)	Ordinary (divided as follows):— Surplus *cash* receipts for sinking fund (see "FF"),	$9,952 96	
	Estimated *value* of municipal use of water (charged to "City of Springfield—Special Account"),	62,939 73	
	Inventory of material, tools, etc., on hand Nov. 30, 1911,	105,687 77	
		$178,580 46	
(*bb*)	Extraordinary:—(as follows):— Little river supply fund (*cash* balance from bond proceeds), Nov. 30, 1911,	190,127 94	
	Total balance,		368,708 40
			$790,347 33
	Less Nov., 1911, accounts, approved and charged 1911 (included above), *but not paid from* 1911 *receipts*,	—$19,686 45	
	Plus Nov., 1910, accounts, approved and charged 1910 (not included above), *but paid from* 1911 *receipts*,	+18,231 08	
	Less net difference (*see analysis*),		—1,455 37
N.	Total (in balance with receipts),		$788,891 96

*No *cash* income derived, but estimated amounts charged and credited in ledger and annual report, as per city ordinance.

Disposition of balance:—*cash* surplus paid into sinking fund by city treasurer; *value* municipal use of water held as a book asset, to offset water bond payments and appropriations by the municipality; inventory of material, tools, etc., and balance of bond proceeds carried forward.

O.	Net cost of works to date, ...	Ludlow supply (including distribution),	$2,907,444 50	Little river supply,	$1,840,334 24	Total,	$4,747,778 74
P.	Bonded debt at date, ...	Ludlow supply,	$475,000 00	"	$1,968,000 00	"	$2,443,000 00
Q.	Value of sinking fund at date, ...	"	$218,484 07	"	.....	"	$218,484 07
R.	Average rate of interest, ...	"	3.87%	"	3.63%	"	.....

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STATISTICS OF CONSUMPTION OF WATER.

*(*For Springfield, only;—see note.*)

1.	Total population at date (estimated), . .	92,003
2.	Estimated population on lines of pipe, . .	90,864
3.	Estimated population supplied, . . .	90,527
4.	Total consumption for the year (Venturi meters), ...	3,847,830,000 gallons
5.	Passed through consumers' meters (quantity charged), ...	1,859,664,505 gallons
6.	Percentage of consumption metered (5÷4), .	48.33 per cent
7.	Average daily consumption, . . .	10,542,000 gallons
8.	Gallons per day to each inhabitant (7÷1), .	115
9.	Gallons per day to each consumer (7÷3), .	116
10.	Gallons per day to each tap (7÷ "Distribution System" 22), ...	812
11.	Cost of supplying water, per million gallons, figured on total maintenance (item CC),	$35 49
12.	Total cost of supplying water, per million gallons, figured on total maintenance plus interest on bonds, ...	$58 93

*NOTE:—*Above do not include Ludlow (estimated population, 5,161, about 3,000 supplied) and Wilbraham (estimated population, 2,457, about 450 supplied) furnished by old unmetered supply from Ludlow reservoir.*

STATISTICS RELATING TO DISTRIBUTION SYSTEM.

MAINS.

1.	Kind of pipe used;—wrought-iron cement-lined (formerly used by private aqueduct company and by city);—wrought-iron—for small and temporary mains,—and cast-iron and steel (used by city at present).	
2.	Sizes;—from one to 54 inches.	
3.	Extended during year (added to pipe table, including all changes, etc.), . . .	46,778 feet
4.	Discontinued during year (deducted from pipe table, including all changes, etc.), . .	14,432 feet
5.	Total now in use, ...	188.87— miles
6.	Cost of repairs per mile (including big breaks), ...	$19.05
7.	Number of leaks per mile (total leaks=32),	0.17—
8.	Length of pipes less than 4 inches in diameter,	6.76— miles
9.	Number of hydrants added during year (public=58, and private=1) (net), . .	59

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10.	Number of hydrants (public=1,393, and private=107), now in use,		1,500
11.	Number of stop gates added during year (public and private) (net),		284
12.	Number of stop gates now in use,		3,896
13.	Number of gates smaller than 4 inch,		630
14.	Number of blow-offs (air valves),		97
15.	Range of pressure on mains:—		
	(*a*) Main street level,		about 144 pounds
	(*b*) Hill section level,		about 86 pounds

SERVICES.

16. Kind of pipe used:—lead (formerly used by private aqueduct company);—cement-lined wrought-iron, and tarred wrought-iron (formerly used by city);—galvanized wrought-iron, and cast-iron (used by city at present).

17. Sizes from ¼ to 8 inches.

18. Extended during year (in feet).
19. Discontinued during year (in feet).
20. Total now in use (in miles).

NOTE.—Services paid for entirely by the consumers, and no special statistics kept of them.

21.	Number of service taps added during year (net),		440
22.	Number of service taps now in use,		12,985
23.	Average length of service,	(See note under 18, 19, 20.)	
24.	Average cost of service,		
25.	Number of meters added (including indicators) (net) (to October 1st),		792
	(*a*) Meters added,	801	
	(*b*) Indicators discontinued,	9	
26.	Number of meters now in use (including indicators) (to October 1st),		8,414
	(*a*) Meters (on supply pipes),	8,286	
	(*b*) Indicators (on elevators and motors),	128	
27.	Percentage of services metered (26÷22),		64.80 per cent.
28.	Percentage of receipts from metered water (B÷C),		71.81 per cent.
29.	Number of motors and elevators added (net),		33
	(*a*) Motors added, 0; discontinued, 3;	=—3	
	(*b*) Elevators added, 41; discontinued, 5;	=+36	
30.	Number of motors and elevators now in use,		392
	(*a*) Motors,	91	
	(*b*) Elevators (direct=231; indirect=70),	301	

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APPENDIX VI.

WATER PIPE LAID AND TAKEN OUT IN 1911, INCLUDING ALL CHANGES IN PIPE TABLE.

LOCATION.	Size in Inches.	Material.	Length in Feet. Amounts.	Totals.
Pipe Laid by Private Parties.				
Hickory st., near Wilbraham road (S. R. 14069),	1¼	Wrought-iron	127	
Lyons st., I. O., south from 6" cast-iron pipe (S. R. 18587),	1¼	"	46	173
Ambrose st., south from Boston road (S. R. 18781),	1¼	"	251	
Boston road, Jasper st. to Ambrose (S. R. 18764),	1¼	"	466	
Howard st., Ludlow, for G. A. Birnie (S. R. 5629A),	1¼	"	392	1,109
Total wrought-iron laid by private parties (forward),				1,282
Pipe Laid by City.				
Rogers ave., I. O., south from 6" (see S. R. 18562),	1	Wrought-iron	38	38
Ashmun st., extension south (see S. R. 18957),	1¼	"	35	
Franklin st., between Webster and Vinton (see S. R. 19187),	1¼	"	40	
Greenacre square (see S. R. 19036),	1¼	"	77	152
Hollywood st., east from Dickinson (see S. R. 18910),	1¼	"	111	
Spencer ave., south from 6" (see S. R. 18456),	1¼	"	217	328
Blaine st., east from Brunswick ave.,	2	"	138	
Groveland st., acc't error previous table,	2	"	137	
Law st., I. O., north from Falmouth,	2	"	227	
Nursery st., south from Franklin,	2	"	9	
Oak Grove ave., extension northerly,	2	"	58	
Plumtree road, east from 6",	2	"	200	
Ridgewood terrace, north from Mulberry st. (see S. R. 8913),	2	"	121	
Woodmont st., west from Liberty,	2	"	337	1,227
Total wrought-iron laid by city (forward),				1,745

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION.	Size in Inches.	Material.	LENGTH IN FEET.	
			Amounts.	Totals.
Hancock st., connecting to State 4",	4	Cast-iron	16	
HYDRANT:				
Terrence st.,	4	"	2	
State st., Oak to Hawley,	4	"	2,373	2,391
Applewood place, north from Belmont ave.,	6	"	460	
Bethune st., north from Allen,	6	"	800	
Brooklyn ave., south from Sumner,	6	"	386	
Brunswick ave., west from Brooklyn,	6	"	1,278	
Center st., north from Oak Grove Park roadway,	6	"	329	
Chester st., extension to Mill,	6	"	217	
Chestnut st., I. O., at Worcester, connecting,	6	"	2	
Claremont st., Orange to Crown,	6	"	526	
Clyde st., extension westerly,	6	"	125	
County st., Berkshire ave. to Switzer	6	"	410	
Crest st., west from Lakeside ave.,	6	"	422	
Eddywoods ave., north of Sumner,	6	"	2,148	
Eleanor road, west from White st.,	6	"	264	
Emily st., north from Switzer ave.,	6	"	409	
First st., St. James boulevard to Second st.,	6	"	654	
Foster st., extension to Knox,	6	"	165	
Goodrich st., north from Liberty,	6	"	278	
Greenacre square, 433 ft. transferred from Foster st.,	6	"	....	
Hancock st., extension to Mill,	6	"	94	
Hiawatha st., east from Whittier ave.,	6	"	327	
Hobson st., south from 8",	6	"	569	
Holly st., I. O., at Worcester, connecting,	6	"	20	
HYDRANTS, sundry streets:—				
Allen st.,	6	"	6	
Applewood place,	6	"	3	
Bethune st.,	6	"	4	
Bridge st.,	6	"	2	
Brooklyn ave.,	6	"	3	
Brunswick ave.,	6	"	6	
Buckingham st.,	6	"	11	
Center st.,	6	"	5	
Chester st.,	6	"	3	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION.	Size in Inches.	Material.	LENGTH IN FEET.	
			Amounts.	Totals.
Congress st.,	6	Cast-iron	5	
Crest st.,	6	"	4	
Cumberland st.,	6	"	4	
Eddywoods ave.,	6	"	10	
Eleanor road,	6	"	4	
Elm st.,	6	"	5	
Emily st.,	6	"	4	
Fisk ave.,	6	"	4	
Foster st.,	6	"	5	
Fremont st.,	6	"	2	
Hawley st.,	6	"	4	
Hobson st.,	6	"	5	
Howard st.,	6	"	14	
Irvington st.,	6	"	7	
Kenwood park,	6	"	2	
Lakeside ave.,	6	"	4	
Liberty st.,	6	"	3	
Lowell st.,	6	"	2	
Main st.,	6	"	5	
Mansfield st.,	6	"	3	
Massachusetts ave.,	6	"	2	
Maynard st.,	6	"	10	
Miller st.,	6	"	4	
Morgan st.,	6	"	4	
New st.,	6	"	2	
Newbury st.,	6	"	6	
Noel st.,	6	"	3	
Orleans st.,	6	"	5	
Pleasant st.,	6	"	4	
Plumtree road,	6	"	6	
Pynchon st.,	6	"	2	
Rochelle st.,	6	"	6	
Rowland st.,	6	"	3	
Sachem st.,	6	"	3	
Second st.,	6	"	5	
Shattuck st.,	6	"	3	
Spencer ave.,	6	"	6	
State st.,	6	"	40	
Stebbins st.,	6	"	6	
Stockbridge st.,	6	"	2	
Switzer ave.,	6	"	6	
Terrence st.,	6	"	3	
Trinity terrace,	6	"	3	
White st.,	6	"	14	
William st.,	6	"	5	
Worcester st., I. O.,	6	"	10	
Worthington court,	6	"	4	
Worthington st.,	6	"	4	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION.	Size in Inches.	Material.	LENGTH IN FEET.	
			Amounts.	Totals.
Irvington st., extension southerly,	6	Cast-iron	206	
Lakeside ave., extension southerly,	6	"	402	
Lyons st., I. O., Main to Quebec, transferred in table from Quebec,	6	"	....	
Magnolia terrace, extension to Washington boulevard,	6	"	29	
Mansfield st., east from White,	6	"	477	
Marion st., 490 ft. transferred in table from Mason,	6	"	....	
Massasoit st., Chapin terrace to Pratt st., transferred from Marvin,	6	"	....	
Maynard st., extension,	6	"	173	
Mill st., Chester to Central,	6	"	1,070	
Miller st., east from Armory,	6	"	653	
Monroe st., west of Hawley,	6	"	146	
New st., north from E. Court,	6	"	23	
Newbury st., extension southerly,	6	"	335	
Noel st., east from Mill,	6	"	295	
Nursery st., south from Franklin,	6	"	155	
Orlando st., extension to Belmont ave.,	6	"	439	
Oxford st., extension,	6	"	158	
Pease st., Mason to Marion, transferred in table from Mason,	6	"	....	
Pleasant st., near State,	6	"	50	
Plumtree road, east from Eddywoods ave.,	6	"	1,677	
Rochelle st., extension southerly,	6	"	551	
Rogers ave., I. O., southerly from Main st.,	6	"	275	
Roseland st., extension westerly,	6	"	50	
Sachem st., extension,	6	"	127	
Second st., St. James boulevard to First st.,	6	"	655	
Shattuck st., Oak Grove ave. to College st.,	6	"	288	
Spencer ave.,	6	"	567	
Switzer ave., Emily st. to east of County	6	"	372	
Trinity terrace, extension southerly,	6	"	320	
Wait st., extension,	6	"	38	
Walter st., Birnie ave. to North Main st.	6	"	399	
Washington boulevard, west from Magnolia terrace,	6	"	189	
Woodlawn st., south from Belmont ave.	6	"	282	
Worthington court, south from Worthington st.,	6	"	285	20,879
Birnie ave., Alfred st. to Portland and Medford to Sheldon,	8	"	1,992	
Buckingham st., State to Bay,	8	"	1,263	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION.	Size in Inches.	Material.	LENGTH IN FEET. Amounts.	Totals.
Chestnut st., I. O., at Worcester, connecting,	8	Cast-iron	16	
Cumberland st., North Main to North,	8	"	183	
Fisk ave., Abbe to Rowland st.,	8	"	270	
Hawley st., at State,	8	"	54	
Liberty st., north from Armory,	8	"	437	
Massachusetts ave., extension southerly	8	"	324	
Mill st., Hancock to Chester,	8	"	237	
Oak st., at State,	8	"	90	
Oak Grove ave., south from Acorn st.,	8	"	193	
Orleans st., at State and connecting,	8	"	64	
Prospect st., Massasoit to Narragansett	8	"	407	
Rowland st., Plainfield to Fisk ave.,	8	"	625	
Stebbins st., at State and connecting,	8	"	80	
Terrence st., at State and connecting,	8	"	77	
Westminster st., at State,	8	"	35	
White st., from No. 382 to Sumner ave.,	8	"	632	6,979
Mill st., Dickinson to Hancock,	10	"	623	
St. James ave., at State st.,	10	"	30	653
Bridge st., Water to Main,	12	"	784	
Court st., at Water,	12	"	19	
East Court st., Main to Dwight,	12	"	583	
Main st., at Longhill,	12	"	87	
North Main st., near Chicopee line,	12	"	25	
White st., Priscilla to Longfellow ter.,	12	"	677	2,175
Orange st., at Oakland (connecting), added to table, account of 1910,	16	"	6	
Worcester st., I. O., Myrtle to Ludlow Main No. 2, in yard of Fiberloid Co.,	16	"	3,369	3,375
State st., Federal to Thompson,	20	"	2,324	2,324
State st., Thompson to near Westminster,	24	"	490	490
Total cast-iron laid by city (above),				39,266
Total wrought-iron laid by city (forward),				1,745
Total wrought-iron laid by private parties (forward),				1,282
Total amount added, 1911,				42,293
Pipe Taken Out or Abandoned.				
White st., near Priscilla,	1	Wrought-iron	22	22
Bond place,	1¼	"	144	
Hobson st. (replaced by 6"),	1¼	"	349	493

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION.	Size in Inches.	Material.	LENGTH IN FEET.	
			Amounts.	Totals.
Howard st., Ludlow (replaced),	1½	Wrought-iron	441	
Mill st., south from Central (replaced by 6"),	1½	"	467	
Spencer ave. (replaced by 6"),	1½	"	365	1,273
Walter st. (replaced by 6"),	2	"	251	251
City Hall ave.,	4	Cast-iron	131	
East Court st. (replaced by 12"),	4	"	584	
HYDRANTS, sundry streets:—				
Liberty st., at Armory,	4	"	25	
Longhill st., at Main,	4	"	30	
North Main st., at proposed street midway Adam's nursery (abandoned from table, account probable error),	4	"	14	
Orleans st., at State,	4	"	64	
Pleasant st. (replaced by 6"),	4	Cement-lined	50	
Stebbins st. (replaced by 8"),	4	Cast-iron	80	
Terrence st. (replaced by 8"),	4	Cement-lined	77	1,055
Birnie ave. (replaced by 8"),	6	Cast-iron	1,749	
Bond place,	6	"	17	
Bridge st. (replaced by 12"),	6	"	815	
Buckingham st.,	6	"	600	
Buckingham st.,	6	Cement-lined	662	
Court st. (replaced by 12"),	6	Cast-iron	19	
Dwight st., south from Lyman,	6	"	49	
FIRE RESERVOIRS, sundry streets,	6	"	86	
Foster st., 433 ft. transferred to Greenacre square,	6	"	....	
Franklin st., at Chestnut (east) (from hydrant to main),	6	"	15	
Groveland st., account error previous table,	6	"	137	
Hawley st. (replaced by 8"),	6	Cement-lined	54	
Liberty st. (replaced by 8"),	6	Cast-iron	24	
Main st., at Bridge (connecting former high and low),	6	"	24	
Monroe st. (replaced by 8"),	6	Cement-lined	154	
Oak st. (replaced by 8"),	6	"	90	
Quebec st., I. O., Main to angle, transferred to Lyons st.,	6	Cast-iron	....	
Westminster st. (replaced by 8"),	6	Cement-lined	35	4,530
Longhill st., at Main,	8	Cast-iron	111	
Main st., at 24" circuit,	8	"	87	
St. James ave., at State st.,	8	Cement-lined	70	268
State st., Federal to near Westminster,	24	"	2,814	2,814
Total amount taken out or abandoned, 1911,				10,706
Net amount added to table account of work done, 1911,				31,587

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Corrections to Table from Actual Measurement of Streets.				
Abbe ave., west from Plainfield st.,...	6	Cast-iron	2	
do. Plainfield st. to Fisk ave.,.....	6	"	3	
Acorn st., Sycamore to Maynard,.....	6	"	1	
Acushnet ave., east from Main st.,....	6	"	....	4
Adams st.,.....	8	"	14	
Albany st., west from 30" "Circuit Main,".....	8	"	....	4
Alden st., from 16" at Hancock to Wilbraham ave.,.....	6	"	6	
Alderman st.,.....	6	"	3	
Alert st., north from Worthington,....	2	Wrought-iron	2	
Alexander st.,.....	6	Cast-iron	....	308
Allen ave., north from private pipe,...	2	Wrought-iron	58	
Allen st., Oakland to White,.....	8	Cast-iron	103	
do. White to Plumtree road,.....	6	"	....	7
Allendale st.,.....	6	"	....	1
Amaron st.,.....	1½	Wrought-iron	....	5
Amherst st.,.....	6	Cast-iron	2	
Andrew st., north from State,.....	4	"	....	3
Arbor st.,.....	6	"	11	
Arbutus st., south from Bay,.....	6	"	1	
Arch st., North Main to east line of B. & M. R. R. location,.....	6	"	....	28
Armory st. ave., east from Armory st.,.	6	"	....	1
Ashmont st.,.....	6	"	2	
Ashmun st., Central to Adams,.....	8	"	1	
Aster st., south from Bay,.....	6	"	2	
Auburn st.,.....	6	"	12	
Avon place,.....	4	"	....	3
Bancroft st., North Main to 8" at Chestnut,.....	6	"	14	
do. at Chestnut,.....	8	"	....	1
Banks place, west from Water st.,....	6	"	....	2
Barber st., south from Boston road,..	6	"	6	
Bay path, north from Berkshire ave.,..	8	"	....	1
Bay st., St. James ave. to Thompson st.,	8	Cement-lined	....	7
do. Thompson to Arbutus (east),...	8	Cast-iron	....	85
Beacon st., Eastern ave. to Colton st.,..	6	"	....	48
do. east from Colton,.....	2	Wrought-iron	....	1
Beauchamp st., east from Armory,....	6	Cast-iron	2	
Beaudry st., I. O., south from Main,..	6	"	1	
Beech st.,.....	6	"	9	
Beechwood ave., Sumner to Spruceland,	6	"	2	
Belgrade place, west from Walnut st.,.	6	"	....	4
do. west from 6",.....	4	"	....	3
Bellevue ave.,.....	8	"	....	53

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Belmont ave., Fort Pleasant to White st.,	8	Cast-iron	....	84
Belvidere ave., Belmont to Fountain place,	6	"	4	
Bemis place, east from Chestnut st.,	2	Wrought-iron	4	
Benton ave., east from 6",	2	"	....	15
Berendo st.,	6	Cast-iron	....	1
Berkeley st., Princeton to Monmouth,	6	"	5	
Berkshire st., I. O., Myrtle to Oak,	6	"	10	
do. east from Oak,	6	"	....	14
Beverly st.,	6	"	....	1
Birnie ave., Sheldon st. to Wason ave.,	8	"	29	
Blake hill, Belmont ave. to Fort Pleasant,	6	"	....	3
Bliss st., Main to Water,	10	"	1	
do. Water to Mechanics row,	6	"	2	
Bloomfield st., Oakland to Earl,	6	"	14	
do. east from Earl,	6	"	....	26
do. west from Pasadena,	6	"	....	2
Bond st., Main to Chestnut,	6	"	10	
do. east from 6", parallel line for engine house,	4	"	3	
Boston road, Jasper st. to Wilton,	6	"	17	
do. west from Parker st.,	6	"	22	
Bowdoin st., St. James ave. to Worthington st.,	4	"	7	
Boylston st.,	6	"	9	
Bradford st.,	6	"	....	37
Broad st., Main to Hanover,	10	"	6	
Brookline ave.,	6	"	....	4
Brown st., Bay to Yale,	6	"	6	
Bryant st.,	8	"	6	
Buckingham st., Bay to Clarendon,	4	"	....	18
Buckingham place, south from Buckingham st.,	1½	Wrought-iron	6	
do. from 1½" to Bay st.,	1½	"	8	
Burke st., I. O., south from Falmouth ave.,	6	Cast-iron	16	
Burlington st.,	6	"	9	
Burr st., east from Andrew,	4	"	....	30
Butler st., Chestnut to Arbor,	6	"	4	
do. east from 6",	4	"	13	
Byers st.,	10	"	9	
Calhoun st., North Main to Chestnut,	6	"	14	
Cambridge st.,	6	"	....	5
Carew place, north from Carew st.,	4	"	3	
Carew st., North to 12" at Chestnut,	8	"	....	11
do. from 12" at Chestnut (east) to Arbor,	6	"	....	34

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Cass st., Liberty to Franklin,	6	Cast-iron	54	
do. Linden to Everett,	4	"	....	6
Catharine st., State to Dartmouth,	12	"	....	2
Cedar st., westerly from Pine to opposite No. 15,	2	Wrought-iron	29	
Cedar st., I. O.,	4	Cement-lined	9	
Center st., north from Shattuck to Oak Grove Park roadway,	6	Cast-iron	....	14
Center st., I. O., east from Oak,	6	"	10	
do. from 6" to Cedar,	2	Wrought-iron	5	
do. east from Cedar,	6	Cast-iron	....	4
Central st., Main to Morris,	8	"	35	
do. Morris to Maple,	10	"	2	
do. Maple to Mill,	8	"	42	
Chapel st., east from Eastern ave.,	6	"	3	
Chapin terrace, Chestnut st. to Massasoit,	8	"	26	
Charles st., Franklin to Liberty,	6	"	36	
do. south from Liberty,	4	"	....	15
Charter ave., east from Walnut st.,	6	"	2	
do. from 6" to Oak st.,	2	Wrought-iron	3	
Chase ave.,	6	Cast-iron	1	
Cherry lane, south from Central st.,	6	"	4	
Cherryvale ave.,	6	"	4	
Chester st., south from Central,	6	"	4	
Chestnut st., north from State,	6	"	....	6
do. from 6" to Harrison ave.,	8	"	....	9
do. Harrison ave. to Worthington st.,	12	"	3	
do. from 12" to Carew,	16	"	17	
do. Carew to Springfield,	12	"	....	48
do. Springfield to Eagle,	8	"	1	
Chestnut st., I. O., Worcester to Berkshire,	8	"	41	
Chicopee road, north from Liberty st.,	6	"	....	4
Church st.,	6	"	....	8
Churchill st.,	6	"	....	4
Clantoy st., Phœnix to Dupont place,	6	"	....	1
Clarence st., at State (see S.R.–17,369A),	8	"	4	
Clarendon st., Bay to St. James ave.,	6	"	....	21
do. St. James ave. to Worthington st.,	2	Wrought-iron	2	
do. at Worthington (north) (for hydrant),	6	Cast-iron	....	12
Clark st.,	6	"	2	
Clayton st., west from Plainfield,	6	"	....	2
Cleveland st.,	6	"	....	25
Clifford st.,	4	"	1	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Cliftwood st.,	6	Cast-iron	....	109
Clinton st., Main to Fulton,	6	"	....	17
Clyde st., west from Plainfield,	6	"	6	
Coleman st., Boston road to beyond Embury st.,	6	"	12	
College st., State to Acorn,	6	"	9	
do. State to Wilbraham road,	8	"	....	1
Collins st.,	6	"	7	
Colonial ave.,	6	"	6	
Colton st., Wilbraham road to Beacon st.,	6	"	9	
Commonwealth ave., Belmont to Walden st.,	8	"	....	6
do. Walden st. to near Fairview (north),	6	"	....	79
Congress st., Main to Chestnut,	6	"	....	5
Continental st.,	6	"	....	3
Converse st., Sumner ave. to Vermont st.,	6	"	16	
Cook's ave., Bridge st. to North Church ave. (see S. R.–7,226–7,227),	4	"	2	
Cortland st., State to Shattuck,	6	"	1	
Court st., Main to 12" at Water,	6	"	15	
do. from 6" to Water,	12	"	....	1
do. west from Main (parallel line),	8	"	6	
Crestwood st., Springfield to Rimmon ave.,	6	"	1	
Cross st., Main to Willow,	12	"	2	
do. Willow to Maple,	10	"	....	1
Crown st., east from White,	6	"	1	
Crystal ave.,	6	"	....	4
Cumberland st., east from North Main,	8	"	4	
Cypress court,	4	"	3	
Cypress st., Main to Fulton,	6	"	....	19
do. Main to Boylston,	8	"	....	42
Dale st., Union to William,	6	"	1	
do. William to Winthrop,	4	"	....	25
Dartmouth st., Catharine to St. James ave.,	12	"	....	2
Dawes st.,	6	"	3	
Dawson st.,	2	Wrought-iron	5	
Daytona st.,	8	Cast-iron	4	
Demond ave.,	6	"	3	
Denver st., south from Boston road,	6	"	....	4
Dexter st.,	6	"	....	1
Dickinson st., Orange to Oakland,	8	"	93	
do. Oakland to Sumner ave.,	6	"	38	
do. Belmont ave. to Groveland,	6	"	32	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Donald st.,	6	Cast-iron	10	
Dorchester st.,	6	"	2	
Dorne st., north from Smith,	6	"	3	
Douglas st.,	6	"	18	
Dover st.,	6	"	7	
Dresden st.,	6	"	....	3
Dwight st., State to Lyman (less 8" crossing sewer at Worthington, north),	10	"	75	
do. State to Bridge (parallel line),	6	"	14	
Dymon st.,	6	"	3	
Eagle st.,	6	"	17	
Eastern ave., in State st., at 24" main,	8	"	3	
do. from gate at State st. 24" main to Tyler st.,	12	"	....	3
do. Tyler st. to Pendleton ave.,	12	Cement-lined	6	
East Hooker st., east from 4",	6	Cast-iron	275	
Edgeland ave., west from Fort Pleasant,	6	"	2	
Edgemont st., north from State,	6	"	2	
Edgewood st., Bay to Acorn,	6	"	5	
Edward st., I. O., Parker to Moore ave.,	6	"	16	
Edwards st., from 6" to Elliott,	4	"	....	16
Elizabeth st., south from Berkshire ave. (for hydrant),	6	"	6	
Elm st., Main to 8" at Water (east),	6	"	....	7
do. Water to beyond railroad,	6	"	12	
do. west from Main (parallel line),	8	"	....	4
Elmwood st., west from 8" at Main,	6	"	....	6
Emery st. } parallel lines,	6	"	....	3
do. }	8	"	19	
Essex st.,	10	"	9	
Essex st., I. O., Myrtle to Pine,	8	"	....	31
Euclid ave., Belmont to Dickinson st.,	6	"	1	
do. (extension) north from Dickinson st.,	6	"	8	
Everett st., Chestnut to near Cass,	6	"	....	8
Fairbanks place, north from Worthington st.,	4	"	....	8
Fairfield st., north from Garfield,	6	"	5	
Fairmount st., east from Commonwealth ave. (see S. R.–14,100–16,937),	1½	Wrought-iron	9	
Falmouth ave., I. O., west from Parker st.,	6	Cast-iron	....	9
Farnsworth st., east from Hainburg,	6	"	4	
Ferry st., east from Main,	6	"	....	2
do. from 6" to Chestnut,	8	"	6	
Firglade ave., Sumner to near Forest park,	6	"	....	31

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Fisk ave., Wason to 12" Grace st. line,	12	Cast-iron	9	
do. from 12" Grace st. line to Abbe ave.,	8	"	8	
Florence st., Pine to Hancock,	10	"	3	
do. Hancock to Walnut,	8	"	7	
Florida st., Bay to 6" cast-iron at Worthington (south),	6	Cement-lined	....	11
do. Worthington to Ingersoll grove,	6	Cast-iron	1	
Forest st.,	6	"	3	
Fort st.,	6	"	13	
Fort Pleasant ave., Mill st. to junction Belmont ave.,	12	"	....	1
do. Belmont to Sumner,	8	"	....	3
Foster st.,	6	"	6	
Franklin st., Main to Chestnut,	8	"	36	
do. Main to Cass,	6	"	10	
Fremont st.,	6	"	....	13
Front st., I. O., west from Oak,	8	"	2	
Fullerton st., northerly from Berkshire ave. (P) (S. R.–17,656),	1¼	Wrought-iron	....	2
Fulton st., Cypress to Plainfield,	6	Cast-iron	5	
Gardner st., Main to Hanover,	10	"	....	2
George st.,	16	"	4	
Girard ave., Bay st. to McKnight,	6	"	....	6
Gold st., east from Armory,	6	"	4	
Governor st., Armory to opposite No. 90,	6	"	....	3
Grace st., North Main to Birnie ave.,	12	"	....	272
Grand st., White to Revere,	6	"	3	
Grant st.,	4	"	2	
Granville st.,	6	"	36	
Gray's ave.,	6	"	5	
Greene st., Hancock to Eastern ave.,	6	"	18	
Greene st. ave., north from Greene st.,	2	Wrought-iron	1	
Greenwich st.,	6	Cast-iron	8	
Greenwood st., east from Main,	6	"	12	
do. from 6" to Chestnut,	4	"	3	
Grenada terrace,	6	"	....	3
Grosvenor st.,	6	"	10	
Grove st., North Main to East Hooker,	6	"	7	
Groveland st., Dickinson to Fairview,	6	"	10	
Gunn square (north roadway), Northampton ave. to Westford,	6	"	....	2
Hall st.	6	"	10	
Hampden st.,	8	"	26	
Hampden st., I. O., Holly to Chestnut (east),	6	"	....	35

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Hampden st., I. O., Chestnut (east) to Myrtle,	4	Cement-lined	71	
do. Myrtle to 6" near Oak,	4	Cast-iron	27	
do. Oak to Pine,	6	"	....	3
Hampshire st., I. O.,	4	"	....	92
Harriet st.,	6	"	....	4
Harrison ave., Main st. to Chestnut,	12	"	3	
Harvard st., Yale to Cornell,	6	"	....	9
Hawthorne st., from 6" at Spruce to Hancock,	4	"	....	1
Hayden ave.,	4	"	2	
Healey ave., I. O., Worcester st. to 387 feet south of South st.,	6	"	....	1
Hebron st.,	6	"	....	4
Hickory st., Walnut st. main (24" circuit) to Walnut st. east line,	8	"	7	
do. Walnut st. east line to hydrant opposite International Y. M. C. A. Training School,	4	"	2	
do. from 4" to Alden,	8	"	....	4
do. Alden to Woodbine ave.,	4	"	8	
High st., Maple to School,	6	"	3	
do. School to near Walnut,	8	"	....	1
do. from 8" to Walnut,	6	Cement-lined	....	6
Highland st., west from Lakeside ave.,	6	Cast-iron	....	3
Highland terrace, St. James boulevard to Jennette ave.,	10	"	7	
Hillman st,	8	"	16	
Hobson st., at Berkshire ave. (for hydrant only),	8	"	14	
Holly st., I. O., Worcester to Hampden,	6	"	3	
do. south from Hampden,	6	"	....	27
Hollywood st., east from Dickinson,	6	"	4	
do. Commonwealth ave. to Belmont,	8	"	11	
Holyoke st.,	6	"	14	
Home st., west from Liberty,	6	"	4	
Homer st.,	6	"	9	
Hooker st., west from city's 6" (P) (S. R.–13,062–13,706),	6	"	22	
Howard st., Main to Water,	6	"	....	10
do. Water, west,	8	"	....	1
Hubbard ave.,	6	"	....	1
Hunt terrace, north from Allen st.,	4	"	1	
Hunter place,	6	"	11	
Huntington st.,	6	"	8	
Hyde ave., Plainfield st. to 4" at Fisk ave.,	6	"	....	13

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Indian Leap st., I. O., north from Main,	6	Cast-iron	....	22
Ingersoll grove, glen driveway to Bowdoin st.,	6	"	....	22
Ingraham ave., at High st. (hydrant only),	6	"	6	
do. at Union st. (hydrant only),	6	"	3	
Irvington st., south from Sumner ave.,	6	"	5	
James st.,	4	"	29	
Jasper st.,	6	"	3	
Jefferson ave., at North Main st.,	8	"	....	1
do. from 8" to North st.,	12	"	....	5
do. from 12" to North st., parallel line,	6	"	1	
do. North st to Chestnut,	4	"	....	14
Jennette ave., southwest from Highland terrace,	12	"	....	6
John st., from 4" to Fulton,	6	"	....	1
Johnson st.,	6	"	....	31
Keith st.,	6	"	4	
Kensington ave., Oakland st. to Rannney,	6	"	....	7
Kenwood terrace,	6	"	....	3
King st., Walnut to 8" at Hancock (west),	4	"	....	13
do. from 8" at Hancock (east) to Logan,	6	"	46	
do. Logan to Wilbraham ave.,	8	"	3	
Knox st.,	6	"	2	
Ladd st.,	6	"	10	
Lafayette st.,	6	"	2	
Lakeside ave., Wilbraham road to Highland st.,	6	"	3	
Langdon st.,	6	"	....	2
Law st., I. O., south from Falmouth ave.,	6	"	....	3
Lawndale st., south from Belmont ave.,	6	"	....	4
Lebanon st., Walnut to Hancock,	16	"	1	
do. from 16" at Hancock (east) to Eastern ave.,	6	"	3	
Lenox st.,	6	"	2	
Lester st., north from Sumner ave.,	6	"	9	
Lexington ave.,	6	"	2	
Leyfred terrace, north from Belmont ave.,	6	"	5	
Liberty st., Main to 8" (opposite Hawkins foundry),	6	"	16	
do. from 6" (opposite Hawkins foundry) to Heywood,	8	"	16	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Liberty st., Heywood to Armory,	8	Cast-iron	18	
do. south from Phœnix,	8	"	17	
do. Phœnix to Carew,	8	"	4	
do. Carew to beyond Chicopee road,	8	"	32	
do. east from near Main (parallel line),	6	"	....	8
Lillian st., Oak to Orleans,	4	"	....	7
Lincoln st.,	6	"	44	
Linden st.,	6	"	....	10
Litchfield st., Belmont ave. to Garfield st.,	6	"	5	
Locust st., Main to Mill,	12	"	....	5
Logan st., King to Alden,	8	"	4	
Lombard st., Main to 8" at Water,	4	"	2	
Longhill st., Main to Cherryvale ave.,	8	"	16	
Loring st., Main to Water,	8	"	....	10
Los Angeles ave., east from Hamburg st.,	6	"	....	1
Lowell st.,	6	"	....	6
LUDLOW SUPPLY:—				
Main No. 2.				
From Prospect st. (in Carew st.) to Chestnut st.,	24	"	....	50
From Chestnut st. (in Carew st.) to Main st.,	20	"	2	
Lyons st., I. O., south from Main,	6	"	8	
Magazine st., Grant to Armory,	4	"	....	56
Magnolia terrace, Sumner ave. to Pineywoods,	6	"	....	29
do. Pineywoods ave., to near Forest park,	6	"	....	4
Main st., Carew to State,	16	"	....	11
do. State to Locust,	12	"	....	31
do. Locust to Mill,	10	"	....	27
do. Mill to Longhill st.,	12	"	....	14
do. south from Longhill st.,	8	"	....	2
do south from 8",	6	"	....	6
Malden st.,	6	"	....	6
Manhattan st.,	6	"	15	
Maple st., Stockbridge to Union,	6	"	....	20
do. Union to Central,	8	"	....	133
do. Central to Pine,	10	"	17	
do. from 4" cast-iron near Pine (east) to George,	4	Wrought-iron	3	
do. Park to Central (parallel line),	6	Cast-iron	....	8
Mapledell st.,	6	"	....	1
Maplewood terrace (north roadway),	6	"	2	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Marengo park,	6	Cast-iron	....	8
Margaret st., Main to Water,	6	"	1	
do. west from 8" at Water (west),	6	"	7	
Marion st., Bay to McKnight,	6	"	3	
Market st., State to Harrison ave.,	6	"	....	30
do. State to Sanford (parallel line),	6	"	17	
Mason place, south from Dickinson st.,	6	"	....	13
Massachusetts ave., south from Wilbraham road,	6	"	3	
do. from 6" to opposite No. 88,	8	"	5	
Massasoit st., Carew to Montmorenci,	6	"	10	
Maycourt st., at Carew (for hydrant only),	6	"	....	8
McKnight st., Sherman to Bowles,	4	"	7	
do. Bowles to Girard ave.,	6	"	14	
Mechanic st., Water to railroad,	6	"	48	
Medford st,	6	"	3	
Melrose st., Walnut to Eastern ave.,	6	"	....	6
do. east from Walnut (P) (S. R.–7,681–8,916),	1¼	Wrought-iron	23	
Merwin st.,	6	Cast-iron	20	
Mill st., Dickinson to Maple,	16	"	....	22
do. Maple to Pine,	8	"	5	
do. Pine to Locust,	16	"	4	
do. Locust to Main,	12	"	36	
Milton st., I. O., south from Main,	6	"	5	
Monmouth st., Yale to Dorchester,	4	"	....	1
Monroe st., at Hancock (east),	8	"	7	
do. from Hancock (east) to Hawley,	6	"	....	1
do. Hawley to Colton,	6	"	....	8
Monson ave., north from Greene st.,	2	Wrought-iron	13	
Montmorenci st.,	6	Cast-iron	13	
Montrose st., south from Burr,	6	"	4	
Moore ave., I. O., north from Edward st.,	6	"	8	
Mooreland ave., north from 8",	6	"	3	
Morgan st., from 4" to near North,	6	"	6	
Morris st., east from Main,	6	"	1	
do. from 6" to Central,	8	"	1	
Mountainview st.,	6	"	13	
Mulberry st., Maple to School,	6	"	7	
do. School to Union,	8	"	....	3
Myrtle st., from 6" at State to High,	4	"	11	
Myrtle st., I. O., Berkshire to Essex,	8	"	1	
Nelson ave., King st. to 1" at Lebanon,	2	Wrought-iron	4	
Newbury st., Carew to Sherman ave.,	6	Cast-iron	8	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Noel st., west from Oakland,	6	Cast-iron	6	
Norfolk st., south from Wilbraham road,	6	"	59	
North st., Carew to near north line of Jefferson ave.,	10	"	6	
do. from near north line of Jefferson ave. to Harriet st.,	6	"	3	
Northampton ave., Wilbraham road to King st.,	6	"	11	
North Main st., Carew to Grace,	16	"	....	14
do. Grace to near Chicopee line,	12	"	13	
Norwood st., from 8" to Hanover,	6	"	7	
Oak st.,	6	Cement-lined	....	26
Oak st., I. O., Water to Main,	8	Cast-iron	24	
do. Main to Hampshire,	6	"	23	
do. Hampshire to Old Bay road,	4	"	66	
do. Old Bay road to High st.,	6	"	....	13
do. High st., south to opp. No. 340,	8	"	....	3
do. from opposite No. 340 south and east to Parker,	6	"	2	
Oak Grove ave., State st. to Shattuck,	6	"	....	1
do. north from Oak Grove Park roadway,	2	Wrought-iron	11	
do. Acorn st. to Bay,	8	Cast-iron	3	
Oak Grove Park roadway, Center st. to Oak Grove ave.,	2	Wrought-iron	5	
Oakland st., Sumner ave. to Belmont,	6	Cast-iron	4	
do. Belmont ave. to Allen st. (less 98 feet at Dickinson st. and 76 feet at Allen st.=no 6" pipe),	6	"	3	
Old Bay road, I. O., Pasco st. to Oak,	8	"	....	4
Olive st.,	6	"	6	
Orange st., Oakland to Allen,	6	"	4	
Orchard st. (connected to 42" at river),	6	"	....	6
Orchard st., I. O., south from South st.,	6	"	....	1
Orlando st., south from Sumner ave.,	6	"	....	4
Orleans st., State to Union,	4	"	....	4
do. Union to Pendleton ave.,	6	"	....	2
Ormond st., north from Belmont ave.,	6	"	6	
do. from 6" to Sumner ave.,	1½	Wrought-iron	4	
Osgood st.,	8	Cast-iron	3	
Oxford st., south from Forest Park ave.,	6	"	....	63
Ozark st., Orange to Grand,	6	"	7	
Palm st., south from Orange,	6	"	....	1
Park st., Main to Willow,	8	"	8	
do. Willow to Maple,	6	"	....	6
Parker st., I. O., from 4" to Boston road,	6	"	11	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Parkside ave., north from Carew st.,	6	Cast-iron	4	
Parkwood st., south from Sumner ave.,	6	"	46	
Pasadena st.,	6	"	7	
Pasco st., I. O., Essex to Old Bay road,	6	"	4	
Patton st., east from Main,	4	"	....	10
do. from 4" to Chestnut,	6	"	....	11
Peabody lane, Main st. to Willow,	2	Wrought-iron	15	
Pearl st., Chestnut to Byers,	6	Cast-iron	8	
do. Byers to Federal,	10	"	106	
Pearl st. place, north from Pearl st.,	6	"	....	1
Pease st., Catharine to Bowles,	2	Wrought-iron	....	14
Penacook ave., Wait st. to Langdon,	6	Cast-iron	2	
Pendleton ave., Walnut st. to 8" cast-iron at Hancock (west),	8	Cement-lined	....	8
do. at Hancock st. (west),	8	Cast-iron	1	
do. from 8" at Hancock st. (east) to Eastern ave.,	6	"	33	
Phœnix st., Liberty to Cherrelyn ave. (east),	6	"	....	8
do. Cherrelyn ave. (east) to 30" "Circuit Main,"	8	"	2	
Pine st., Cedar (16" cross) to George (16" y),	16	"	19	
do. George (16" y) to Mill (8" gate, east),	16	"	15	
Pine st., I. O., Main to beyond Chapman Valve Mfg. Co.'s shop,	6	"	....	25
Pine st. court,	2	Wrought-iron	5	
Pineywoods ave., Washington boulevard to Washington road,	6	Cast-iron	....	8
Plainfield st., John to Fulton,	6	"	4	
do. Washburn to Wason ave.,	8	"	....	14
Plymouth st.,	6	"	6	
Portland st.,	6	"	8	
Prescott st.,	6	"	4	
Prince st., King to 1" at Lebanon,	2	Wrought-iron	....	1
Princeton st., Bay to Cornell,	6	Cast-iron	6	
Prospect st., Chestnut to Massasoit,	4	"	6	
Pynchon st., Main to opposite I. O. O. F. building,	8	"	12	
do. from 8" to Water,	12	"	11	
Quebec st., I. O., north from Main st. to angle,	6	"	....	3
do. east from angle,	6	"	....	2
Queen st., east from Walnut,	4	"	7	
do. from 4" to 8" at Hancock,	6	"	6	
Quincy st., Oak to 8" at Hancock (west),	6	"	10	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Quincy st., from 8" at Hancock (east) to Colton st.,	6	Cast-iron	6	
Railroad st., Main to 12" at Water,	6	"	3	
Randall ave., north from 4" (see S. R.–15,121),	1½	Wrought-iron	2	
Randolph st., Maplewood terrace to Forest Park ave.	6	Cast-iron	3	
Ranney st., Orange to Kensington ave.,	6	"	34	
Rapalus ave., I. O., easterly from Parker st.,	6	"	9	
Reed st.,	6	"	5	
Revere st.,	6	"	....	1
Richelieu court,	4	"	....	4
Ridgewood place,	6	"	....	4
Ridgewood terrace, west from Mulberry st. (top of hill),	4	"	2	
do. west from 4" and north to Union st.,	6	"	10	
Ringgold st.,	6	"	23	
Ripley place,	6	"	....	4
Riverview st.,	6	"	6	
Riverview terrace (south roadway), Fort Pleasant ave. to Riverview st.,	6	"	2	
Rochelle st., south from Wilbraham road,	6	"	....	5
Rowland st., west from Plainfield,	6	"	5	
Rush ave., south from Berkshire,	1¼	Wrought-iron	2	
Rutland st., north from Wilbraham road.	1¼	"	5	
do. north from 1¼",	3	"	2	
Rutledge ave.,	6	Cast-iron	4	
Sachem st., north from Dickinson,	6	"	8	
Salem st., Spring to Elliott,	6	"	....	2
do. Elliott to Mattoon (at turn),	6	"	2	
Sanford st., from 6" to Market,	4	"	27	
do. Market to Dwight,	6	"	4	
do. Market to 4" at Dwight (parallel line),	6	"	27	
Sargeant st.,	6	"	20	
School st.,	12	"	6	
Scott st.,	6	"	3	
Searle place, east from Walnut st.,	6	"	1	
Shamrock ave., south from Noel st.,	6	"	....	1
do. south from 6" (see S. R.–13,367),	1¼	Wrought-iron	....	1
Shamrock st., west from Oakland,	2	"	10	
Sharon st.,	10	Cast-iron	....	1

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Shattuck st., College to Cortland,	6	Cast-iron	....	2
Shefford st., north from Springfield,	8	"	4	
Sheldon st., east from Birnie ave.,	6	"	17	
do. east from 6" to near North Main (connecting to 36"),	4	"	12	
Sherman st., State to Bay,	4	"	....	10
Smith st., from 6" to Dorne,	4	"	5	
do. Dorne to Knox,	6	"	....	2
South st., I. O., Healey ave. to beyond Orchard ave.,	6	"	27	
Spring st., State to Lyman,	6	"	31	
Spruce st.,	8	"	7	
Spruceland ave., Longhill st. to Magnolia terrace,	6	"	2	
Stafford st., westerly from Armory,	6	"	....	4
State st., from railroad (west) to Water,	4	"	....	16
do. from 24" near Water (east) to 12" near Main (west),	8	"	....	1
do. from 8" to Main,	12	"	1	
do. Main to Spring,	16	"	....	70
do. from 16" at Spring (east) to Federal,	20	"	....	19
do. from connecting 6" to Main st., (parallel line)	6	"	10	
do. from 6" near Main to Maple, (parallel line)	8	"	24	
do. Maple to opposite east line of State Street Grammar school, (parallel line)	6	"	10	
State st. ave., north from State st.,	1½	Wrought-iron	....	19
Stebbins st., State to Union,	4	Cast-iron	14	
do. Union to Quincy,	6	"	1	
Sterling st., east from Armory,	6	"	2	
St. James ave., State st. to Bay,	8	Cement-lined	....	43
do. Bay st. to 8" at Dartmouth (south),	6	Cast-iron	....	47
do. from 6" at Dartmouth st. (north) to 6" near Lafayette,	8	"	....	11
Stockbridge st., Main to Willow,	6	"	....	10
do. Willow to Maple,	6	"	5	
Suffolk st., south from Wilbraham road,	6	"	6	
Summer st., Spring to Kibbe ave.,	8	"	....	15
do. Kibbe ave. to Armory st.,	8	"	9	
Sumner ave., Longhill st. to Fort Pleasant ave.,	6	"	36	
do. Fort Pleasant to White st.,	8	"	....	16
do. White st. to opposite No. 1,079 (near Allen st.),	6	"	5	

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Sumner terrace, Sumner ave. to Garfield st. (northerly portion crossing private property),	6	Cast-iron	....	11
Sycamore st., Bay to Acorn,	6	"	1	
Sylvan ave., south from Belmont,	6	"	1	
Symonds ave., Worthington st. to North Church ave.,	4	"	....	9
Talcott ave.,	6	"	19	
Taylor st., Main to Dwight,	8	"	....	66
do. east from Dwight,	8	"	41	
do. from 8" to Chestnut,	6	"	....	8
Temple st.,	4	"	2	
Tenth st.,	6	"	13	
Terrence st.,	4	Cement-lined	....	3
Thomas st.,	6	Cast-iron	....	2
Townsley ave.,	6	"	....	7
Tracy ave., Liberty st. to near Franklin,	6	"	3	
Trenton st., east from Dickinson,	4	"	4	
Trinity terrace, south from Sumner ave.,	6	"	3	
Tyler st., Oak to 10" at Hancock (west),	6	Cement-lined	....	1
do. from 10" at Hancock (east) to Colton,	6	Cast-iron	14	
Union st., railroad to Water,	8	"	2	
do. Water to Main,	6	"	10	
do. Main to Willow,	6	"	17	
do. Willow to Maple,	6	"	7	
do. Maple to School,	6	"	25	
do. School to Mulberry,	8	"	4	
do. from 10" at Mulberry (east) to 10" at Hancock (west),	8	Cement-lined	....	121
do. Hancock to Colton,	6	Cast-iron	6	
Van Ness ave., east from Hamburg st.,	6	"	3	
Ventura st.,	6	"	....	3
Vermont st., Pomona to Converse,	6	"	....	7
Vernon st., Main to 12" at Water,	6	"	....	67
Vine st.,	6	"	32	
Vinton st., Liberty to near Franklin,	6	"	3	
Walden st., Dickinson to Commonwealth ave.,	6	"	....	4
do. east from Commonwealth ave. (see S. R.-12,275),	1½	Wrought-iron	....	10
Walker st., Water to Gardner ave.,	8	Cast-iron	12	
Walnut st., Union to 12" at Cedar (north),	8	Cement-lined	....	3
do. between Cedar st. 16" and Lebanon st. 16",	16	Cast-iron	....	1

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WATER PIPE LAID, ETC., IN 1911.—CONTINUED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Walnut st., from Lebanon 16″ to Hancock,	8	Cast-iron	24	
do. Hancock to Hickory (at U. S. Watershops),	12	"	65	
Walter st., at North Main,	6	"	11	
Waltham ave., south from Wilbraham road,	6	"	9	
Wareham st., Orange to Grand,	4	"	7	
Warner st.,	6	"	....	6
Warriner ave., east from Locust st.,	6	"	....	1
Washburn st., west from east line of Plainfield,	6	"	7	
Washington road, Sumner ave. to Washington boulevard,	6	"	....	3
Wason ave., North Main st. to 12″ gate at Fisk ave. (east),	12	"	27	
do. from 12″ gate at Fisk ave. (east) to 8″ pipe at Plainfield st.,	10	"	....	28
Webster st.,	6	"	4	
Welcome place,	6	"	4	
Wellesley st.,	6	"	....	1
Wellington st., south from Wilbraham road,	6	"	4	
Wendell ave.,	6	"	....	8
West st., west from Plainfield,	6	"	1	
Westernview st.,	6	"	6	
Westminster st., State to Bay,	6	Cement-lined	12	
Whitney place, west from Water st.,	4	Cast-iron	1	
Whittier ave.,	6	"	3	
Wight place, east from Water st.,	6	"	3	
Wilbraham ave., south from Wilbraham road,	6	"	6	
do. 6″ to King st.,	8	"	3	
Wilbraham road, Eastern ave. to near Carlisle st. (west),	12	"	18	
do. from 12″ to opposite House of Good Shepherd,	8	"	8	
do. east from 8″ (see S. R.–12,284–12,285),	1¼	Wrought-iron	....	4
Wilcox st., Main to Water,	6	Cast-iron	....	4
do. Water to near railroad,	4	"	4	
William st., railroad to Water,	8	"	1	
do. Water to Dale,	6	"	....	24
Willow st., State to Hubbard ave.,	10	"	13	
Wilmont st., east from Dickinson,	6	"	9	
Winthrop st.,	6	"	17	
Wolcott st.,	6	"	5	

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WATER PIPE LAID, ETC., IN 1911.—CONCLUDED

LOCATION OF PIPE.	Size in Inches.	Material.	Increase in Feet.	Decrease in Feet.
Woodbine ave., north from Hickory st.,	4	Cast-iron	....	8
Woodmont st., east from Liberty,	2	Wrought-iron	....	3
Woodside terrace, north from Forest Park ave.,	4	Cast-iron	11	
do. north from Belmont ave.,	6	"	....	9
Woodworth ave.,	2	Wrought-iron	....	2
Worcester ave.,	6	Cast-iron	17	
Worcester st, I. O., Holly to Oak,	6	"	7	
do. Oak to Pine,	2	Wrought-iron	5	
Worthington st., Cook's ave. to Dwight st.,	8	Cast iron	7	
do. near No. 432–434 to Bowdoin,	8	"	14	
do. Bowdoin to St. James ave.,	12	"	....	34
do. Symonds ave. (dead end) to Spring st. (parallel line),	6	"	6	
Yale st., Dartmouth to Monmouth,	6	"	....	10
York st., west from Main,	10	"	1	
do. from 8" to Hanover (west),	6	"	2	
Total corrections to table from actual measurement 1911,			4,485	3,726
Net addition to table from actual measurement, 1911,			759	....
Net addition to pipe table, work and measurement, 1911,			....	32,346

☞ Names of public streets changed by order of City Council, and of private streets changed by mutual agreement, and now changed in pipe table, as follows:—

"Brace street" to "Burlington street."
"Berendo avenue" to "Berendo street."
"College avenue" to "College street."
"Fairbanks street" to "Bethune street."
"Long street" to "St. James boulevard."
"Marvin street" to "Massasoit street."
"Noel avenue" to "Noel street."
"Shamrock avenue" (west from Oakland street) to "Shamrock street."
"Warner place" to "Warner street."

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APPENDIX VII.

SUPPLY AND DISTRIBUTION MAIN PIPE IN USE DECEMBER 1, 1911.

[*Pipe Belonging to Private Parties Marked (P).*]

LOCATION OF PIPE	Size in Inches	Length in Feet			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Abbe ave., west from Plainfield st	6	....	....	1,065	
do. Plainfield st. to Fisk ave	6	....	....	691	1,756
Acorn st., Sycamore to Maynard	6	....	....	432	432
Acushnet ave., east from Main st	6	....	....	1,076	1,076
Adams st	8	....	....	1,052	1,052
Albany st., west from 30" "Circuit Main"	8	....	....	596	596
Alden st., at Hancock	16	....	....	4	
do. from 16" at Hancock to Wilbraham ave	6	....	....	2,255	
do. Wilbraham ave. to Hickory st	8	....	....	437	2,696
Alderman st	6	....	....	1,409	1,409
Alert st., north from Worthington	2	233	....	....	233
Alexander st	6	....	....	454	454
Alfred st	6	....	....	554	554
Allen ave., north from Allen st. (P) (S. R.-9,209)	2	200	....	....	
do. north from private pipe	2	144	....	....	344
Allen st., from Mill river (at U. S. Watershops) to Oakland st.,-243 feet, -(see "Circuit Main," Forest Park section)	24	....	....	....	
do. Oakland to White	8	....	....	568	
do. White to Plumtree road	6	....	....	4,480	5,048
Allendale st	6	....	....	694	694
Amaron st	1½	480	....	....	480
Ambrose st., south from Boston road (P) (S. R. 18,781)	1½	251	....	....	251
Amherst st	6	....	....	1,341	1,341
Andrew st., north from State	4	....	....	1,402	1,402
Applewood pl., north from Belmont ave.	6	....	....	460	460
Arbor st	6	....	....	468	468
Arbutus st., south from Bay	6	....	....	298	298
Arch st., North Main to east line of B. & M. R. R. location	6	....	....	971	971
Arch st., Ludlow, west from North	2	191	....	....	191
Armory st., Federal to Worthington	4	....	....	936	
do. Worthington to Summer	8	....	....	840	
do. Summer to north of N.E.R.R. tracks (west of abutments)	8	....	....	130	
do. from north of N. E. R. R. tracks to Van Horn pond	8	....	....	5,385	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Armory st., Van Horn pond to Springfield st.	12	....	....	2,431	9,722
Armory st. ave., east from Armory st..	6	....	....	519	519
Armory st. court, south from Armory st. ave.	6	....	....	266	266
Ashley st.	6	....	....	1,427	1,427
Ashmont st.	6	....	....	505	505
Ashmun st., Central to Adams.	8	....	....	270	
do. south from Adams (see S. R.–13,315).	1½	88	....	....	358
Aster st., south from Bay.	6	....	....	342	342
Atwater ter., west from Rimmon ave..	6	....	....	936	936
Auburn st.	6	....	....	912	912
Austin st., north from State.	8	....	....	375	375
Avon place.	4	....	....	712	712
Avon place—Madison ave. connecting line.	8	....	....	656	656
Bancroft st., North Main to 8″ at Chestnut.	6	....	....	1,525	
do. at Chestnut.	8	....	....	3	
do. east from North Main (hydrant only).	6	....	....	21	1,549
Banks place, west from Water st.	6	....	....	227	227
Barber st., south from Boston road.	6	....	....	464	464
Bay path, north from Berkshire ave.	8	....	....	904	904
Bay st., St. James ave. to Thompson st.	8	....	1,268	....	
do. Thompson to Arbutus (east)..	8	....	....	5,688	6,956
Bay st. ave., south from Bay st. (see S. R.–11,664).	1½	150	....	....	150
Beacon st., Eastern ave. to Colton st..	6	....	....	326	
do. east from Colton.	2	128	....	....	454
Beauchamp st., east from Armory.	6	....	....	508	508
Beaudry st., I. O., south from Main.	6	....	....	499	
do. south from 6″ (P) (S. R.–10,768).	1	310	....	....	809
Beaumont st., Sumner ave. to Dickinson st.	6	....	....	1,208	1,208
Bedford road, south from Rimmon ave.	2	295	....	....	295
Beech st.	6	....	....	580	580
Beechwood ave., Sumner to Spruceland	6	....	....	567	567
Belgrade place, west from Walnut st...	6	....	....	221	
do. west from 6″.	4	....	....	147	368
Bellevue ave.	8	....	....	1,592	1,592
Belmont ave., Fort Pleasant to White st.	8	....	....	9,160	9,160
Belmont place (see S. R.–12,367–12,368–15,317).	1½	247	....	....	247
Belvidere ave., Belmont to Fountain pl..	6	....	....	663	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Belvidere ave., south from Fountain pl. (P) (S. R.–15,304)	1	444	....	....	1,107
Bemis place, east from Chestnut st.	2	354	....	....	354
Benton ave., east from Benton st.	6	....	....	15	
do. east from 6"	2	590	....	....	605
Benton st., State to 6"	4	....	....	1,175	
do. from 4" to Wilbraham road	6	....	....	418	1,593
Berendo st	6	....	....	418	418
Berkeley st., Princeton to Monmouth	6	....	....	498	498
Berkshire ave., State st. to Chestnut, I. O. (see Ludlow supply, "Main No. 1")	24	....	——	....	
Berkshire st., I. O., Chestnut to Myrtle (see Ludlow supply, "Main No. 1")	24	....	——	....	
do. Myrtle to Oak	6	....	....	713	
do. east from Oak	6	....	....	382	1,095
Bethune st., north from Allen	6	....	....	800	800
Beverly st	6	....	....	251	251
Bevier st., east from Armory	6	....	....	617	617
Birnie ave., Arch st. (south line) to Sheldon st. (42" from Little river), –332 feet,–(see "Circuit Main," lower section)	36	....	....	——	
do. at Sheldon st. (north) (connecting 6" line to 42" and 36" lines)	12	....	....	12	
do. at Sheldon st. (north) east from above 12" (connecting 6" line to 42" and 36" lines)	8	....	....	13	
do. Arch st. to Sheldon	6	....	....	336	
do. Sheldon st. to Wason ave	8	....	....	3,995	4,356
Blaine st., east from Brunswick ave.	2	138	....	....	138
Blake hill, Belmont ave. to Fort Pleasant	6	....	....	386	386
Bliss st., Main to Water	10	....	....	1,027	
do. Water to Mechanics row	6	....	....	380	1,407
Bloomfield st., Oakland to Earl	6	....	....	1,033	
do. east from Earl	6	....	....	147	
do. west from Pasadena	6	....	....	20	1,200
Bond place, south from Bridge st	6	....	....	174	174
Bond st., Main to Chestnut	6	....	....	1,684	
do. east from Main (Parallel line	6	....	....	18	
do. east from 6" ... (for eng. h'se.	4	....	....	186	1,888
Boston ave., south from Boston road (P) (S. R.–8,171)	1¼	172	....	....	172

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Boston & Albany R. R. and other private property, from north line of Railroad st. (in Water) crossing to south line of Cypress st. (opposite Boylston),–569 feet,–(see "Circuit Main," lower section)	36	....	....	——	
Boston & Maine R. R., east line of location to east line of Plainfield st. (under tracks, connecting Arch and Washburn sts.)	6	....	....	226	226
Boston road, east from Berkshire ave. (see S. R.–12,314)	6	....	....	130	
do. Ambrose st. to Jasper (P) (S. R.–18,764)	1½	466	....	....	
do. Jasper st. to Wilton	6	....	....	1,315	
do. east from Wilton st	6	....	....	170	
do. west from Parker st	6	....	....	1,540	3,621
Bowdoin st., St. James ave. to Worthington st	4	....	....	1,209	
do. Worthington to Ingersoll g've	6	....	....	833	2,042
Bowles st., Pease to McKnight	2	455	....	....	
do. McKnight to Bay	4	....	....	811	1,266
Boylston st	6	....	....	943	943
Bradford st	6	....	....	986	
do. west from North Main (hydrant only)	6	....	....	67	1,053
Bridge st., at Water (east)	8	....	....	12	
do. from 8" at Water to Chestnut	6	....	....	1,912	
do. at Water st. 36" (west)	6	....	....	25	
do. west from 6" (for West Springfield emergency supply)	3	14	....	....	
do. Water to Main	12	....	....	784	
do. east from Main	6	....	....	211	
do. west from Chestnut (parallel line) (see S. R.–18,311A)	6	....	....	190	3,148
Brightwood ave., west from Plainfield st.	6	....	....	176	176
Bristol st., south from Wilbraham rd.	6	....	....	548	548
Broad st., Main to Hanover	10	....	....	1,016	1,016
Brookline ave	6	....	....	644	644
Brooklyn ave., south from Sumner	6	....	....	386	386
Brown st., Bay to Yale	6	....	....	570	570
Brunswick ave., Brooklyn to Blaine st.	6	....	....	1,278	1,278
Bryant st	8	....	....	941	941

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Buckingham st., north from State	6	....	8	....	
do. from cement-lined to Bay	8	....	....	1,263	
do. Bay to Clarendon	4	....	....	788	2,059
Buckingham place, south from Buckingham st	1¼	149	....	....	
do. from 1¼" to Bay st	1½	203	....	....	352
Buena Vista plaza, west from Longhill st. (P) (S. R.–10,533)	2	423	....	....	423
Burke st., I. O., south from Falmouth ave	6	....	....	266	266
Burlington st	6	....	....	387	387
Burr st., east from Andrew	4	....	....	665	665
Butler st., Chestnut to Arbor	6	....	....	973	
do. east from Arbor	6	....	....	194	
do. east from 6"	4	....	....	359	1,526
Byers st	10	....	....	1,430	1,430
Calhoun st., North Main to Chestnut	6	....	....	1,219	
do. at North Main (for hydrant only)	6	....	....	16	1,235
Cambridge st	6	....	....	1,596	1,596
Carew pl., north from Carew st	4	....	....	185	185
Carew st., Main to Chestnut, 1,672 feet (see Ludlow supply, "Main No. 2")	20	....	....	——	
do. Chestnut to Prospect, 1,984 feet (see Ludlow supply, "Main No. 2")	24	....	....	——	
do. easterly from Prospect, 427 feet (see "Circuit Main," north section)	36	....	....	——	
do. easterly from 36" to near Liberty (west), 3,496 feet (see "Circuit Main," north section)	30	....	....	——	
do. easterly from near Liberty (west) to near St. James ave. (west) (see Ludlow supply, "Main No. 2")	30	....	....	——	
do. North st. to 12" at Chestnut	8	....	....	779	
do. at Chestnut (west)	12	....	....	9	
do. at Chestnut (east)	12	....	....	9	
do. from 12" at Chestnut (east) to Arbor	6	....	....	908	
do. east from Main (hydrant only)	8	....	....	19	
do. east from Armory (hydrant only)	6	....	....	11	1,735
Carew st. ave., north from Carew st. (P) (S. R.–12,009)	1½	323	....	....	323
Carlisle st., south from Wilbraham road	6	....	....	692	692

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Cass st., Liberty to Franklin	6	....	....	682	
do. Franklin to Linden	8	....	....	576	
do. Linden to Everett	4	....	....	353	1,611
Catharine st., State to Dartmouth	12	....	....	1,959	1,959
Cedar st., westerly from Pine to opposite No. 15	2	419	....	....	
do. Pine to Walnut	16	....	....	1,260	1,679
Cedar st., I. O.	4	....	383	....	383
Center st., north from Shattuck to Oak Grove Park roadway	6	....	....	745	745
Center st., I. O., east from Oak	6	....	....	856	
do. from 6″ to Cedar	2	365	....	....	
do. east from Cedar	6	....	....	369	1,590
Central st., Main to Morris	8	....	....	914	
do. Morris to Maple	10	....	....	496	
do. Maple to Mill	8	....	....	4,077	5,487
Chapel st., east from Eastern ave	6	....	....	414	
do. east from 6″ (see S. R.–17,029)	1¼	16	....	....	430
Chapin pond, pumping station	8	....	....	163	
do. do.	12	....	....	299	462
Chapin terrace, Chestnut st. to Massasoit	8	....	....	668	668
Charles st., Franklin to Liberty	6	....	....	710	
do. south from Liberty	4	....	....	189	899
Charter ave., east from Walnut st	6	....	....	267	
do. from 6″ to Oak st	2	373	....	....	640
Chase ave	6	....	....	646	646
Cherrelyn ave., south from Phoenix st	6	....	....	344	344
Cherry lane, south from Central st	6	....	....	1,134	
do. from 6″ to Mill st. (see S. R.–12,558)	1¼	409	....	....	1,543
Cherryvale ave	6	....	....	735	735
Chester st., south from Central	6	....	....	924	924
Chestnut st., north from State	6	....	....	354	
do. from 6″ to Harrison ave	8	....	....	635	
do. Harrison ave. to Worthington st.	12	....	....	876	
do. north from Worthington	12	....	....	63	
do. from 12″ to Carew	16	....	....	3,202	
do. Carew to Springfield	12	....	....	3,760	
do. Springfield to Eagle	8	....	....	599	9,489
Chestnut st., I. O., Worcester to Berkshire	8	....	....	711	
do. at Worcester (connecting to 16″)	6	....	....	2	713
Chicopee road, south from Carew st. (hydrant only)	6	....	....	19	
do. north from Liberty st	6	....	....	396	415
Chicopee Falls road, Ludlow, west from 30″ main (see S. R.–9,075)	2	1,219	....	....	1,219

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Chilson st., south from Sumner ave.	6	....	....	210	210
Church st.	6	....	....	905	905
Churchill st.	6	....	....	671	671
CIRCUIT MAIN, as follows:—					
North Section.					
In Sheldon st.;—from Birnie ave. (junction with 42" Little river supply main) to North Main st. (at Jefferson ave.)	36	....	....	722	
In Jefferson ave.;—from North Main st. to Chestnut (at Montmorenci)	36	....	....	1,346	
In Montmorenci st.;—from Chestnut to Massasoit	36	....	....	681	
In right of way;—from Massasoit st., crossing private property to Narragansett st.	36	....	....	298	
In Narragansett st.;—from right of way to Prospect st.	36	....	....	953	
In Prospect st.;—from Narragansett to Carew	36	....	....	516	
In Carew st.;—from Prospect easterly to 30" (formerly part of Ludlow 30" "Main No. 2")	36	....	....	427	
In Carew st.;—from 36" to "hill section" near Liberty (west),—(this portion changed in table from Ludlow "Main No. 2")	30	....	....	3,496	8,439
Hill Section.					
In right of way;—from "north section" 30" in Carew st.,—near Liberty st. (west),—southerly to railroad under-pass at McKnight glen	30	....	....	3,585	
In McKnight glen;—from railroad under-pass to opposite private driveway to Ingersoll grove	30	....	....	487	
In private driveway;—from McKnight glen to Ingersoll grove	30	....	....	296	
In Ingersoll grove;—from private driveway to Worthington st. (at Thompson)	30	....	....	560	
In Thompson st.;—from Worthington to State (at Hancock)	30	....	....	2,289	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
In Hancock st.;—from State to Lebanon	30	....	....	2,412	
In Hancock st.;—from Lebanon to Walnut	24	....	....	914	
In Walnut st.;—from Hancock to and crossing Hickory (at U. S. Watershops), thence in Mill st. to "Forest park section" at center of Mill river (at Allen st.)	24	....	....	1,870	12,413
Forest Park Section.					
In Allen st.;—from "hill section" 24" at center of Mill river to Oakland st.	24	....	....	243	
In Oakland st.;—from Allen to Belmont ave. (at Garfield st.)	24	....	....	3,416	
In Garfield st.;—from Belmont ave. to Forest Park ave.	24	....	....	1,626	
In Forest Park ave.;—from Garfield st. to Fort Pleasant ave. (at proposed st.)	24	....	....	1,996	
In proposed st.;—from Fort Pleasant ave. to Longhill st., thence crossing private property and Main st. to "lower section" in Pecousic ave. (near Main st.)	24	....	....	1,377	8,658
Lower Section.					
In Pecousic ave.;—from "Forest park section" 24",—(near Main st.),—to 36" *steel* pipe at Mill river crossing (south)	36	....	....	179	
In Pecousic ave.;—from south side to north side of Mill river, crossing same under bed of stream and close to easterly side of bridge (*=riveted *steel* pipe embedded in concrete)	36	318*	....	....	
In Pecousic ave.;—from 36" *steel* pipe,—at Mill river crossing (north),—to Gardner st. (at Water)	36	....	....	1,848	
In Water st.;—from Gardner to Railroad st. (north line)	36	....	....	5,152	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
In right of way;—from north line of Railroad st. (at Water), crossing B. & A. R. R. tracks and private property to south line of Cypress st. (opposite Boylston)..	36	....	....	569	
In Cypress st.;—from Boylston to Fulton	36	....	....	153	
In Fulton st.;—from Cypress to north line of Plainfield (at Round hill).	36	....	....	3,620	
In Round hill;—from north line of Plainfield st. to south line of Arch st. (at Birnie ave.)	36	....	....	769	
In Birnie ave.;—from south line of Arch st. to "north section" at Sheldon st. (junction with 42" Little river supply main)	36	....	....	332	12,940
Summary.					
24" cast-iron pipe = 11,442 feet.					
30" " " = 13,125 "					
36" " " = 17,565 "					
36" riveted steel* " = 318 "					
Total "Circuit" = 42,450 feet.					
Clantoy st., Phoenix to Dupont place..	6	....	....	1,169	1,169
Claremont st	6	....	....	526	526
Clarence st., at State (see S. R.–17,369A)	8	....	....	40	40
Clarendon st., Bay to St. James ave...	6	....	....	1,047	
do. St. James ave. to Worthington st	2	295	....	....	
do. north from Worthington	2	233	....	....	1,575
Clark st	6	....	....	638	638
Clayton st., west from Plainfield	6	....	....	418	418
Cleveland st	6	....	....	1,080	1,080
Clifford st	4	....	....	506	506
Clifton ave., south from Central st	4	....	....	504	504
Cliftwood st	6	....	....	340	340
Clinton st., Main to Fulton	6	....	....	820	820
Clyde st., west from Plainfield	6	....	....	995	995
Coleman st., Boston road to beyond Embury st	6	....	....	1,048	1,048
College st., Wilbraham road to State st.	8	....	....	566	
do. State to Acorn	6	....	....	2,072	2,638
Collins st	6	....	....	587	587
Colonial ave	6	....	....	856	856
Colton st., Wilbraham road to Beacon st.	6	....	....	1,689	1,689

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Columbia terrace, north from Liberty st.	6	....	....	246	246
Commonwealth ave., Belmont to Walden st.	8	....	....	446	
do. Walden st. to near Fairview (north)	6	....	....	1,500	1,946
Concord terrace, north from Wilbraham road	2	202	....	....	202
Congress st., Main to Chestnut	6	....	....	1,588	1,588
Continental st	6	....	....	459	459
Converse st., Sumner ave. to Vermont st.	6	....	....	550	550
Cook's ave., Bridge st. to North Church ave. (see S. R.–7,226–7,227)	4	....	....	142	142
Cornell place, north from Cornell st.	1¼	106	....	....	106
Cornell st	6	....	....	1,829	1,829
Cortland st., State to Shattuck	6	....	....	798	798
Cottage ave., north and thence east from Melrose st.	6	....	....	492	492
County st	6	....	....	410	410
Court st., Main to 12" at Water	6	....	....	919	
do. from 6" to Water	12	....	....	35	
do. west from Main (parallel line)	8	....	....	300	1,254
Crest st., west from Lakeside ave.	6	....	....	422	422
Crestwood st., Springfield to Rimmon ave.	6	....	....	654	654
Crosby st., Walnut to near Hancock	2	365	....	....	365
Cross st., Main to Willow	12	....	....	360	
do. Willow to Maple	10	....	....	606	966
Crown st., east from White	6	....	....	232	232
Crystal ave	6	....	....	958	958
Cumberland st., east from North Main	8	....	....	382	382
Cypress court	4	....	....	368	368
Cypress st., Main to Fulton	6	....	....	656	
do. Main to Boylston	8	....	....	509	
do. Boylston to Fulton,—153 feet,—(see "Circuit Main," lower section)	36	....	....	——	1,165
Dale st., Union to William	6	....	....	401	
do. William to Winthrop	4	....	....	224	625
Dartmouth st., Catharine to St. James ave.	12	....	....	1,034	1,034
Dartmouth terrace, west from St. James ave	6	....	....	479	479
Davis st., Ludlow, south from Stebbins	1¼	237	....	....	237
Dawes st	6	....	....	1,253	1,253
Dawson st	2	406	....	....	406

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Daytona st.	8	....	....	644	644
Demond ave.	6	....	....	894	894
Denver st., south from Boston road.	6	....	....	956	956
Dexter st.	6	....	....	754	754
Dickinson st., Mill to Orange.	16	....	....	175	
do. Orange to Oakland.	8	....	....	1,863	
do. Oakland to Sumner ave.	6	....	....	2,101	
do. Belmont ave. to Groveland.	6	....	....	2,136	6,275
Donald st.	6	....	....	507	507
Dorchester st.	6	....	....	622	622
Dorne st., north from Smith.	6	....	....	223	223
Douglas st.	6	....	....	600	600
Dover st.	6	....	....	849	849
Dresden st.	6	....	....	802	802
Dupont place, west from Clantoy st. (see S. R.-12,766)	1¼	191	....	....	191
Dwight st., State to Lyman (less 8" crossing sewer at Worthington, north)	10	....	....	2,397	
do. crossing sewer at Worthington (north)	8	....	....	28	
do. State to Bridge (parallel line)	6	....	....	1,572	3,997
Dymon st.	6	....	....	528	528
Eagle st.	6	....	....	613	613
Earl st., Johnson to Bloomfield.	2	299	....	....	
do. Bloomfield to Orange.	6	....	....	616	915
East Court st.	12	....	....	583	583
Eastern ave., in State st., at 24" main.	8	....	....	21	
do. from gate at State st. 24" main to Tyler st.	12	....	....	1,565	
do. Tyler st. to Pendleton ave.	12	....	356	....	
do. Pendleton ave. to Hickory st.	8	....	....	2,835	4,777
East Hooker st., east from North Main	4	....	....	14	
do. east from 4"	6	....	....	636	650
Eddywoods ave.	6	....	....	2,148	2,148
Edgeland ave., west from Fort Pleasant	6	....	....	490	490
Edgemont st., north from State.	6	....	....	636	636
Edgewood st., Bay to Acorn.	6	....	....	1,073	1,073
Edward st., I. O., Parker to Moore ave.	6	....	....	498	498
Edwards st., at Chestnut.	6	....	....	20	
do. from 6" to Elliott.	4	....	....	717	737
Eleanor road, west from White st.	6	....	....	264	264
Elizabeth st., south from Berkshire ave. (for hydrant)	6	....	....	42	
do. south from 6"	1¼	290	....	....	332
Elliott st.	6	....	....	1,059	1,059

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Elm st., Main to 8″ at Water (east)	6	....	....	958	
do. at Water (east)	8	....	....	15	
do. Water to beyond railroad	6	....	....	311	
do. west from 6″ (beyond railroad)	2	45	....	....	
do. west from Main (parallel line)	8	....	....	302	1,631
Elmwood st., at Main	8	....	....	8	
do. west from 8″ at Main	6	....	....	804	
do. from 6″ to Hanover	8	....	....	163	975
Emery st. } parallel lines	6	....	....	664	
do. } parallel lines	8	....	....	735	1,399
Emily st., north from Switzer avenue	6	....	....	409	409
Erie st., west from Chicopee road	6	....	....	408	408
Essex st	10	....	....	1,662	1,662
Essex st., I. O., Myrtle to Pine	8	....	....	1,409	1,409
Euclid ave., Belmont to Dickinson st	6	....	....	1,204	
do. (extension) north from Dickinson	6	....	....	288	1,492
Everett st., Chestnut to near Cass	6	....	....	1,178	
do. from 6″ to Cass	4	....	....	50	
do. east from Cass	4	....	....	302	1,530
Fairbanks place, north from Worthington st	4	....	....	281	281
Fairfield st., north from Garfield	6	....	....	939	939
Fairmount st., east from Commonwealth ave. (see S. R.–14,100–16,937)	1½	241	....	....	241
Fairview st., east from Groveland ave.	6	....	....	96	96
Falmouth ave., I.O., west from Parker st.	6	....	....	446	446
Farnsworth st., east from Hamburg	6	....	....	1,342	1,342
Federal st., State to Armory	16	....	....	998	
do. Armory to Summer	8	....	....	1,500	2,498
Ferry st., east from Main	6	....	....	669	
do. from 6″ to Chestnut	8	....	....	863	1,532
Firglade ave., Sumner to near Washington boulevard	6	....	....	1,495	1,495
First st. (East Springfield.)	6	....	....	654	654
Fisk ave., Wason to 12″ Grace st. line	12	....	....	760	
do. from 12″ Grace st. line to Rowland st	8	....	....	983	1,743
Five mile pond pumping station:—					
Suction for small pump	10	....	....	6	
Suction for small pump (balance left in)	12	....	....	28	
Discharge for small pump	12	....	....	38	
Suction for large pump	20	....	....	293	
Discharge for large pump	12	....	....	15	
Discharge line, connecting pumps with Ludlow Main No. 1	16	....	....	2,755	
For fire hydrant at pump house	4	....	....	25	3,160

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Florence st., Pine to Hancock	10	....	....	1,634	
do. Hancock to Walnut	8	....	....	343	1,977
Florentine gardens	6	....	....	594	594
Florida st., Bay to 6" cast iron at Worthington (south)	6	....	1,509	....	
do. at Worthington (south)	6	....	....	14	
do. Worthington to Ingersoll g've	6	....	....	851	2,374
Forest park, from Sumner ave. (P) (S. R.–9,099)	6	....	....	2,610	
do. for hydrants (P) (S. R.–9,099)	4	....	....	30	
do. in Greeting ave. (city pipe) (see S. R.–13,555)	6	....	....	238	2,878
Forest Park ave., Fort Pleasant to Sumner	6	....	....	2,613	
do. Sumner to Pineywoods	6	....	....	832	
do. Fort Pleasant to Garfield st., —1,996 feet,—(see "Circuit Main," Forest park section)	24	....	....	——	3,445
Forest st	6	....	....	846	846
Fort st	6	....	....	728	
do. west from Main (P) (S.R.–6,490)	4	....	....	76	804
Fort Pleasant ave., Mill st. to junction Belmont ave	12	....	....	166	
do. Belmont to Sumner	8	....	....	2,752	
do crossing to Longhill st., etc. (in proposed st.),—1,377 feet,—(see "Circuit Main," Forest park section)	24	....	....	——	2,918
Foster st	6	....	....	792	792
Franklin st., Main to Chestnut	8	....	....	1,619	
do. Main to Cass	6	....	....	3,050	
do. east from Cass (see S. R.–15,681)	8	....	....	75	
do. east from Cass (P) (S. R.–6,651)	1¼	128	....	....	
do. west from Webster (see S. R.–13,954)	6	....	....	140	
do. west from 6" (see S. R.–19,187)	1¼	40	....	....	
do. east from Webster	6	....	....	83	
do. near Webster (east) (connecting 6" and 2")	1	4	....	....	
do. from 6" to Genesee	2	1,017	....	....	6,156
Fremont st	6	....	....	818	818
Front st., I. O., west from Oak	8	....	....	585	585
Fullerton st., northerly from Berkshire ave. (P) (S. R.–17,656)	1¼	666	....	....	666
Fulton st., Cypress to Plainfield	6	....	....	3,535	
do. Cypress to Plainfield (north line), —3,620 feet,—(see "Circuit Main," lower section)	36	....	....	——	3,535

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Gardner ave., Walker st. to Gardner	8	....	....	314	314
Gardner st., Main to Hanover	10	....	....	1,170	1,170
Garfield st., Forest Park ave. to near schoolhouse	6	....	....	1,281	
do. Forest Park ave. to Belmont ave.,—1,626 feet,—(see "Circuit Main," Forest park section)	24	....	....	——	1,281
Genesee st., at Liberty (for hydrant only)	6	....	....	34	
do. Liberty to Franklin	2	323	....	....	
do. at Franklin (north)	1¼	38	....	....	
do. north from 1¼"	6	....	....	194	589
George st	16	....	....	598	598
Girard ave., Bay st. to McKnight	6	....	....	969	969
Gladwood ave	6	....	....	492	492
Gold st., east from Armory	6	....	....	292	292
Goldenrod st., south from Bay	6	....	....	277	277
Goodrich st., north from Liberty	6	....	....	278	278
Gordon st	6	....	....	592	592
Governor st., Armory to opposite No. 90	6	....	....	923	923
Grace st., North Main to Birnie ave	12	....	....	418	
do. Birnie ave., crossing to Fisk	12	....	....	390	808
Grand st., White to Revere	6	....	....	559	559
Grant st	4	....	....	602	602
Granville st	6	....	....	545	545
Gray's ave	6	....	....	591	591
Greenacre sq	6	....	....	433	
do. north from northeast angle (see S. R.–19,036)	1¼	77	....	....	510
Green lane, circuit from Rimmon ave. and return	6	....	....	1,117	1,117
Greene st	6	....	....	1,381	1,381
Greene st. ave., north from Greene st	2	201	....	....	201
Greenleaf st	6	....	....	666	666
Greenwich st	6	....	....	706	706
Greenwood st., east from Main	6	....	....	1,275	
do. from 6" to Chestnut	4	....	....	340	1,615
Grenada terrace	6	....	....	1,186	1,186
Grosvenor st	6	....	....	771	771
Grove st., North Main to East Hooker	6	....	....	553	
do. at North Main (looking west)	6	....	....	16	569
Groveland st., east from Dickinson	6	....	....	519	
do. east from 6"	2	137	....	....	656
Grover st	6	....	....	1,380	1,380

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Gunn square (north roadway), Northampton ave. to Westford	6	....	....	291	
do. (south roadway) east from Northampton ave	1¼	142	....	....	433
Hall st	6	....	....	1,029	1,029
Hamburg st., Springfield to Van Ness ave	6	....	....	1,045	1,045
Hampden st	8	....	....	697	697
Hampden st., I. O., Holly to Chestnut (east)	6	....	....	637	
do. Chestnut (east) to Myrtle	4	....	706	....	
do. Myrtle to 6″ near Oak	4	....	....	689	
do. from 4″ to Oak	6	....	....	35	
do. Oak to Pine	6	....	....	543	2,610
Hampshire st., I. O	4	....	....	1,737	1,737
Hancock st., State to Lebanon,—2,412 feet,—(see "Circuit Main," hill section)	30	....	....	——	
do. Lebanon to Walnut,—914 feet,—(see "Circuit Main," hill section)	24	....	....	——	
do. State to Alden (parallel line)	4	....	....	3,163	
do. Walnut to Central	6	....	....	1,542	
do. at Central (south)	8	....	....	3	
do. south from 8″ (at Central)	4	....	....	225	
do. from 4″ to Mill st	6	....	....	802	5,735
Hanover st., Gardner to York	8	....	....	800	800
Harriet st	6	....	....	856	856
Harris road, Ludlow, north from North st	6	....	....	1,763	1,763
Harrison ave., Main st. to Chestnut	12	....	....	898	
do. Main st. to Dwight (parallel line)	6	....	....	649	
do. east from Main st. (for hydrant only)	6	....	....	25	
do. west from Dwight st. (short line)	6	....	....	173	1,745
Harvard st	6	....	....	1,654	1,654
Harvey st	4	....	....	1,581	1,581
Hawley st., south from State	8	....	....	54	
do. from 8″ to Monroe	6	....	461	....	515
Hawthorne st., at Spruce	6	....	....	13	
do. from 6″ at Spruce to Hancock	4	....	....	554	567
Hayden ave	4	....	....	1,097	1,097
Healey ave., I. O., Worcester st. to 387 feet south of South st	6	....	....	1,376	1,376
Hebron st	6	....	....	730	730
Heywood st., south from Liberty (P) (S. R.–6,720)	6	....	....	257	257

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Hiawatha st., east from Whittier ave...	6	....	....	327	327
Hickory st., east from Central.....	2	488	....	....	
do. Walnut st. main (24" circuit) to Walnut st. east line.....	8	....	....	159	
do. Walnut st. east line to hydrant opposite International Y. M. C. A. Training school.....	4	....	....	2,292	
do. from 4" to Alden.....	8	....	....	319	
do. Alden to Woodbine ave.....	4	....	....	546	
do. at Woodbine ave. (east).....	4	....	....	11	
do. east from 4" at Woodbine ave..	3	799	....	....	
do. from 3" to Carlisle branch (east) (see S. R.–11,027).....	1½	1,501	....	....	
do. east from 1½" (see S. R.–11,028)	1	13	....	....	
do. south from Wilbraham road (see S. R.–12,284–12,285).....	1½	235	....	....	6,363
High st., Maple to School.....	6	....	....	810	
do. School to near Walnut.....	8	....	....	1,803	
do. from 8" to Walnut.....	6	....	44	....	2,657
Highland st., west from Lakeside ave...	6	....	....	378	378
Highland terrace, Long st. to Jennette ave.....	10	....	....	2,141	2,141
Hillman st.....	8	....	....	708	708
Hillside place (P) (S. R.–8,946).....	2	120	....	....	120
Hobson st., at Berkshire ave.....	8	....	....	46	
do. south from 8".....	6	....	....	569	615
Holly st., I. O., Worcester to Hampden..	6	....	....	395	
do. south from Hampden.....	6	....	....	153	548
Hollywood st., east from Dickinson....	6	....	....	22	
do. east from 6".....	1½	111	....	....	
do. Commonwealth ave. to Belmont.....	8	....	....	574	707
Holyoke st.....	6	....	....	892	892
Home st., west from Liberty.....	6	....	....	694	694
Homer st.....	6	....	....	653	653
Hooker st., west from North Main.....	6	....	....	14	
do. west from city's 6" (P) (S. R.–13,062–13,706).....	6	....	....	888	902
Horace st., north from Dickinson.....	6	....	....	166	166
Howard court, south from Howard st. (see S. R.–8,662).....	1½	212	....	....	212
Howard place, south from Howard st...	4	....	....	160	160
Howard st., Main to Water.....	6	....	....	984	
do. west from Water.....	8	....	....	444	1,428
Howard st., Ludlow, east from North (P) (S. R.–5,629).....	1½	392	....	....	392
Howes st., south from Sumner ave.....	6	....	....	276	276

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Hubbard ave.	6	....	....	595	595
Hunt terrace, north from Allen st.	4	....	....	236	
do. north from 4"	1¼	108	....	....	344
Hunter place	6	....	....	660	660
Huntington st.	6	....	....	707	707
Hyde ave., Plainfield st. to 4" at Fisk ave.	6	....	....	951	
do. at Fisk ave.	4	....	....	7	958
Hydrants, sundry streets	4	....	....	4,990	
do. sundry streets	6	....	....	6,191	
do. sundry streets	8	....	....	626	
do. Hooker st. (P) (S. R.–13,062–13,706)	6	....	....	34	11,841
Indian Leap st., I. O., north from Main	6	....	....	424	424
Ingersoll grove, Worthington st. to private driveway to McKnight glen, 560 feet (see "Circuit Main," hill section)	30	....	....	——	
do. glen driveway to Bowdoin st.	6	....	....	851	851
Ingraham ave., at High st. (hydrant only)	6	....	....	30	
do. at Union st. (hydrant only)	6	....	....	27	57
Ionia st., north from State	6	....	....	699	699
Irvington st., south from Sumner ave.	6	....	....	759	759
James st.	4	....	....	964	964
Jasper st.	6	....	....	1,082	1,082
Jefferson ave., at North Main st.	8	....	....	18	
do. from 8" to North st.	12	....	....	862	
do. at North Main st. } parallel line	12	....	....	15	
do. from 12" to North st. } parallel line	6	....	....	835	
do. North st. to Chestnut	4	....	....	512	
do. North Main st. to Chestnut, 1,346 feet (see "Circuit Main," north section)	36	....	....	——	2,242
Jennette ave., southwest from Highland terrace	12	....	....	651	651
John st., west from Plainfield	4	....	....	259	
do. from 4" to Fulton	6	....	....	418	677
Johnson st.	6	....	....	1,899	1,899
Joy st., Ludlow, west from North st. to 2" at angle	4	....	....	600	
do. south from 4", at angle, to Ludlow Main No. 1	2	244	....	....	
do. north from 2", at angle	1¼	115	....	....	959
Keith st.	6	....	....	1,126	1,126

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Kensington ave., Oakland st. to Ranney	6	....	....	1,424	1,424
Kenwood park	6	....	....	800	800
Kenwood terrace	6	....	....	628	628
Kibbe ave	8	....	....	240	240
King st., Walnut to 8" at Hancock (west)	4	....	....	952	
do. at Hancock (west)	8	....	....	30	
do. at Hancock (east)	8	....	....	7	
do. from 8" at Hancock (east) to Logan	6	....	....	1,886	
do. Logan to Wilbraham ave	8	....	....	313	
do. Wilbraham ave. to Westford	6	....	....	523	3,711
Knox st	6	....	....	1,189	1,189
Ladd st	6	....	....	565	565
Lafayette st	6	....	....	622	622
Lakeside ave., Wilbraham road to Highland st	6	....	....	702	702
Langdon st	6	....	....	938	938
Laurel st., west from Plainfield	6	....	....	674	674
Law st., I. O., south from Falmouth ave	6	....	....	180	
do. north from Falmouth ave	2	227	....	....	407
Lawndale st., south from Belmont ave	6	....	....	248	248
Lebanon place, south from King st. (P) (S. R.–5,016)	1¼	336	....	....	336
Lebanon st., Walnut to Hancock	16	....	....	627	
do. at Hancock (east)	16	....	....	4	
do. from 16" at Hancock (east) to Eastern ave	6	....	....	1,376	2,007
Ledyard st., Liberty to Armory	6	....	....	610	610
Lenox st	6	....	....	449	449
Lester st., north from Sumner ave	6	....	....	526	526
Lexington ave	6	....	....	668	668
Leyfred terrace, north from Belmont ave	6	....	....	598	598
Liberty st., Main to 8" (opposite Hawkins foundry)	6	....	....	2,000	
do. from 6" (opposite Hawkins foundry) to Heywood	8	....	....	2,069	
do. Heywood to Carew	8	....	....	4,206	
do. Carew to beyond Chicopee road	8	....	....	2,019	
do. east from near Main (parallel line)	6	....	....	1,130	
do. from 6" to near Chestnut (parallel line)	4	....	....	222	11,646
Lillian st., Oak to Orleans	4	....	....	433	433
Lincoln st	6	....	....	848	848
Linden st	6	....	....	1,336	1,336

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Litchfield st.	6	....	....	426	426
LITTLE RIVER SUPPLY, as follows:—(*=*lock-bar steel pipe*);—					
Diversion dam to tunnel	36	....	....	25	
	54	717*	....	....	
(Tunnel=6′-3″ high x 5′-0″ wide x 4,526′ long)					
Tunnel to sedimentation basin	54	1,134*	....	....	
	36	....	....	53	
	42	318*	....	....	
Sedimentation basin to filters	42	264*	....	....	
	36	....	....	176	
	30	....	....	316	
	24	....	....	61	
	20	....	....	114	
	16	....	....	61	
Filters to regulating house	24	....	....	616	
	20	....	....	411	
Regulating house to Provin mountain reservoir	42	39,040*	....	....	
	36	....	....	46	
At Provin mountain reservoir	36	....	....	146	
	42	....	....	93	
Provin mountain reservoir to Connecticut river	42	22,170*	....	....	
	42	....	....	43	
Connecticut river crossing, South line	42	....	....	24	
	30	....	....	20	
	30	1,061*	....	....	
	30	....	....	20	
	42	....	....	24	
Connecticut river crossing, North line	30	....	....	30	
	30	1,102*	....	....	
	30	....	....	30	
Connecticut river to Birnie ave. (in Orchard st. and right of way)	42	....	....	2,070	70,185
Total Steel Pipe....=65,806 feet* / *Total Cast-Iron Pipe= 4,379 feet*					
Locust st., Main to Mill	12	....	....	745	745
Logan st., King to Alden	8	....	....	1,217	1,217
Lombard st., Main to 8″ at Water	4	....	....	645	
do. at Water	8	....	....	15	660
Longfellow terrace, east from Whittier ave.	6	....	....	330	330
Longhill st., Main to Cherryvale ave.	8	....	....	2,772	
do. Cherryvale ave. to Main st. (opposite E. H. Barney's house)	6	....	....	2,275	5,047

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Loon pond pumping station:—					
Suction pipe	10	....	....	84	
Discharge pipe, connecting pump with Oak st., I. O., main	10	....	....	752	836
Loring st., Main to Water	8	....	....	779	779
Los Angeles ave., east from Hamburg st.	6	....	....	503	503
Lowell st	6	....	....	1,366	1,366
LUDLOW SUPPLY, as follows:—					
Main No. 1.					
From gatehouse to Higher brook as follows:—Crossing highway, thence near and southerly of same through private property, thence recrossing highway and northerly of same through private property to highway at brook	24	....	....	3,736	
Higher brook to Federal st. as follows:—Following highway to near Ludlow village, thence westerly, north of Athol branch of B. & A. R. R.—crossing over Chicopee river at "Indian Leap";—thence under tracks of railroad, and south of same to Main st., I. O., just east of Cedar st.;—thence in Main st., I. O., westerly to Myrtle; in Myrtle st. southerly to Berkshire; in Berkshire ave. (Indian Orchard road) to State st.; and in State st. to near Westminster—(less 215 feet *cast-iron* under tracks of B. & A. R. R., as below)	24	....	49,646	....	
Near Westminster to Thompson, 490 feet (see State st.)	24	....	....	——	
Thompson to Federal, 2,324 feet (see State st.)	20	....	....	——	
Federal to Spring (east), 1,778 feet (see State st.)	20	....	....	——	
Spring (east) to Main, 1,986 feet (see State st.)	16	....	....	——	
Under Athol branch tracks of B. & A. R. R. (at Indian Orchard)	24	....	....	135	
Under main tracks of B. & A. R. R. (at dry bridge in Indian Orchard road)	24	....	....	80	53,597

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
(NOTE:—Actual total length of Main No. 1 *to Main st.* is 60,175 feet, or 2,685 feet *more* than Main No. 2.)					
Main No. 2.					
From gatehouse, through dam.....	30	....	....	120	
From dam to intersection of Main No. 1 as follows:—Crossing highway thence southerly of same and of Main No. 1, through private property to point of intersection in highway, about midway Ludlow center and Ludlow village..	36	....	....	13,388	
From intersection of Main No. 1 to 24" (in Carew st.) as follows:—Crossing highway at point of intersection, thence northerly of Main No. 1, through private property to Chicopee river, just below and west of Indian Orchard, and crossing same under bed of stream; thence through private property including St. James boulevard, to Carew st., just west of St. James ave., and thence in Carew st. to junction of north and hill sections of "Circuit Main" near Liberty st. (west)...	30	....	....	36,403	
From near Liberty st. (west)—(in Carew st.)—to 36", near Prospect st., 3,496 feet (see "Circuit Main," north section).....	30	....	....	——	
From 30" (in Carew st.) to Prospect st., 427 feet (see "Circuit Main," north section).....	36	....	....	——	
From Prospect st. (in Carew st.) to Chestnut st.....	24	....	....	1,984	
From Chestnut st. (in Carew st.) to Main st.....	20	....	....	1,672	53,567
(NOTE:—Actual total length of Main No. 2 *to Main st.* is 57,490 feet, or 2,685 feet *less* than Main No. 1.)					

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
At Reservoir.					
From distributing canal to cut-off basin	36	....	....	36	
Under cut-off dam	36	....	....	132	
At Cherry Valley drain gate	20	....	....	36	204
At Chicopee River.					
Auxiliary main for possible future use, laid across and under bed of stream, west of and parallel to Main No. 2—not connected at either end	30	....	....	300	300
Lyman st., Main to Dwight	6	....	....	850	
do. Dwight to Chestnut	8	....	....	475	
do. Chestnut to Spring	6	....	....	768	
do. Main to Chestnut (parallel line)	8	....	....	1,369	3,462
Lyndale st.	8	....	....	1,101	1,101
Lyons st., I. O., south from Main	6	....	....	897	
do. south from 6" (P) (S. R.–18,587)	1¼	46	....	....	
do. Main to Quebec	6	....	....	226	1,169
Madison ave., north from Central st.	6	....	....	556	556
Magazine st., Grant to Armory	4	....	....	582	582
Magnolia terrace	6	....	....	1,544	1,544
Main st., Carew to State	16	....	....	5,199	
do. State to Locust	12	....	....	4,112	
do. Locust to Mill	10	....	....	771	
do. Mill to 24" circuit	12	....	....	983	
do. south from 24" circuit	8	....	....	1,078	
do. south from 8"	6	....	....	355	
do. south from 6" (opposite South End bridge)	1¼	133	....	....	
do. Longhill st. (opposite E. H. Barney's house) to Pecousic brook	6	....	....	508	
do. Hampden to Central (parallel line)	12	....	....	4,340	17,479
Main st., I. O., west from Myrtle	8	....	....	510	
do. Myrtle to beyond Cedar (see Ludlow supply, "Main No. 1.")	24	....	——	....	
do. at 24" main (east)	8	....	....	24	
do. from 8" at 24" main (east) to Wilbraham line	6	....	....	3,930	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Main st., I.O.(between Cedar and Lyons sts.), by-pass from 6" to 24" Main No. 1	6	....	....	40	4,504
MAIN SUPPLY PIPES—(see "Ludlow supply," and "Little river supply")					
Malden st	6	....	....	1,503	1,503
Manhattan st	6	....	....	1,135	1,135
Mansfield st., east from White	6	....	....	477	477
Maple court	6	....	....	742	742
Maple st., Stockbridge to Union	6	....	....	837	
do. Union to Central	8	....	....	1,102	
do. Central to Pine	10	....	....	1,912	
do. east from Pine	4	....	....	69	
do. from 4" cast-iron near Pine (east) to George	4	279	....	....	
do. at George (connecting 4" and 16")	2	76	....	....	
do. George to Mill	16	....	....	511	
do. Park to Central (parallel line)	6	....	....	1,278	6,064
Maple st., (Upper) Ludlow, east from Harris road	6	....	....	432	432
Mapledell st	6	....	....	1,012	1,012
Maplewood terrace (north roadway)	6	....	....	1,380	1,380
Marble st	8	....	....	1,084	1,084
Marengo park	6	....	....	1,373	
do. south side of park	2	590	....	....	1,963
Margaret st., Main to Water	6	....	....	885	
do. at Water (west)	8	....	....	36	
do. west from 8" at Water (west)	6	....	....	502	1,423
Margerie st., north from State (P) (S. R.–17,354A)	1¼	340	....	....	340
Marion st	6	....	....	1,382	1,382
Market st., State to Harrison ave	6	....	....	1,028	
do. State to Sanford (parallel line)	6	....	....	315	1,343
Marlborough st., east from Norfolk	1½	86	....	....	86
Marshall place, east from Walnut st. (P) (S. R.–8,911, etc.)	1½	163	....	....	163
Mason place, south from Dickinson st	6	....	....	614	614
Mason st	6	....	....	681	681
Massachusetts ave., south from Wilbraham road	6	....	....	339	
do. from 6" to near No. 112	8	....	....	898	1,237
Massasoit place, east from Massasoit st.	6	....	....	270	270
Massasoit st., Carew to Montmorenci	6	....	....	1,931	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Massasoit st., north from Montmorenci.	6	....	....	147	
do. Chapin terrace to Pratt st.....	6	....	....	346	2,424
Mattoon st., Chestnut to Salem (at turn)	6	....	....	593	593
Maycourt st., at Carew (for hydrant only).....	6	....	....	53	53
Maynard st., south from Shattuck.....	6	....	....	785	
do. south from Acorn.....	6	....	....	508	1,293
McKnight glen, railroad under-pass to glen driveway (to Ingersoll grove), 487 feet (see "Circuit Main," hill section).....	30	....	....	——	
do. in glen driveway to Ingersoll grove, 296 feet (see "Circuit Main," hill section).....	30	....	....	——	
McKnight st., Sherman to Bowles.....	4	....	....	514	
do. Bowles to Girard ave.....	6	....	....	428	942
Mechanic st., Water to railroad.....	6	....	....	440	440
Mechanics row, south from Bliss st....	2	69	....	....	69
Medford st.....	6	....	....	685	685
Melrose st., Walnut to Eastern ave.....	6	....	....	1,030	
do. east from Walnut (P) (S. R.–7,681–8,916).....	1½	192	....	....	1,222
Mero st., Ludlow, east from Harris road	6	....	....	489	489
Merrick ave.....	6	....	....	373	373
Merwin st.....	6	....	....	750	750
Middlesex st., south from Wilbraham road.....	6	....	....	623	623
Mill st., Hickory to Mill river (at U. S. Watershops) (included in "Circuit Main," hill section)..	24	....	....	——	
do. from "Circuit Main" 24" (at U. S. Watershops) to Central st.	8	....	....	229	
do. Central to Chester.....	6	....	....	1,070	
do. Chester to Hancock.....	8	....	....	237	
do. Hancock to Dickinson.....	10	....	....	623	
do. Dickinson to Maple.....	16	....	....	940	
do. Maple to Pine.....	8	....	....	850	
do. Pine to Locust.....	16	....	....	992	
do. Locust to Main.....	12	....	....	617	5,558
Miller st., east from Armory.....	6	....	....	653	653
Milton st., l. O., south from Main.....	6	....	....	699	
do. south from 6" (P) (S. R.–10,779 and 10,780).....	1½	203	....	....	902
Monmouth st., Berkeley to Yale.....	6	....	....	479	
do. Yale to Dorchester.....	4	....	....	682	1,161
Monroe st., at Hancock (east).....	8	....	....	7	
do. from 8" to Colton.....	6	....	....	1,691	1,698

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Monson ave., north from Greene st....	2	212	....	....	212
Montmorenci st.....	6	....	....	691	
do. 681 feet (see "Circuit Main," north section).....	36	....	....	——	691
Montrose st., south from Burr.....	6	....	....	982	982
Moore ave., west from Plainfield st....	6	....	....	663	663
Moore ave., I.O., north from Edward st.	6	....	....	178	178
Mooreland ave., at Carew st.....	8	....	....	12	
do. north from 8".....	6	....	....	1,252	1,264
Morgan st, east from North Main.....	6	....	....	178	
do. east from 6".....	4	....	....	63	
do. from 4" to near North.....	6	....	....	586	
do. from above 6" to 6" at North..	4	....	....	57	
do. at North.....	6	....	....	33	
do. east from North Main (hydrant only).....	6	....	....	21	938
Morris st., east from Main.....	6	....	....	746	
do. from 6" to Central.....	8	....	....	318	1,064
Mountainview st.....	6	....	....	739	739
Mulberry st., Maple to School.....	6	....	....	693	
do. School to Union.....	8	....	....	1,371	2,064
Murray Hill ave., Liberty st. to 1" at Franklin.....	6	....	....	651	
do. at Franklin st. (connecting)....	1	15	....	....	666
Myrtle st., at State.....	6	....	....	24	
do. from 6" at State to High.....	4	....	....	535	559
Myrtle st., I. O., Main to Berkshire (see Ludlow supply, "Main No. 1").....	24	....	——	....	
do. Berkshire to Essex.....	8	....	....	628	628
Narragansett st., northerly from Prospect, 953 feet (see "Circuit Main," north section).....	36	....	....	——	
Nelson ave., King st. to 1" at Lebanon.	2	362	....	....	
do. at Lebanon st. (north).....	1	17	....	....	
do. Lebanon st. to Greene.....	2	411	....	....	790
New st., west from Dwight.....	6	....	....	176	
do. west from Dwight (parallel line)	2	180	....	....	
do. north from East Court.....	6	....	....	23	379
Newbury st., Carew to Sherman ave...	6	....	....	989	989
Newland st., west from Plainfield.....	6	....	....	1,192	1,192
Noel st., west from Oakland.....	6	....	....	819	
do. south from Mill.....	6	....	....	295	1,114
Norfolk st., south from Wilbraham road	6	....	....	1,343	
do. south from 6".....	1½	38	....	....	1,381
North st., Liberty to Carew.....	10	....	....	2,297	
do. Carew to near north line of Jefferson ave.....	10	....	....	2,055	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
North st., from near north line of Jefferson ave. to Harriet st.	6	....	....	1,272	5,624
Northampton ave., Wilbraham road to King st.	6	....	....	2,156	2,156
North Church ave., Symonds to Cook's.	4	....	....	276	276
North Main st., Carew to Grace.	16	....	....	5,401	
do. Grace to near Chicopee line.	12	....	....	1,726	7,127
Norwood st., at Main.	8	....	....	44	
do. from 8" to Hanover.	6	....	....	1,023	
do. at Pecousic ave. (for by-pass).	6	....	....	34	1,101
Nursery st., at Franklin (south).	2	9	....	....	
do. south from 2".	6	....	....	155	164
Oak st., at State.	8	....	....	90	
do. from 8" to Walnut.	6	....	1,334	....	1,424
Oak st., I O., Water to Main.	8	....	....	405	
do. at Main (for by-pass).	6	....	....	36	
do. Main to Hampshire.	6	....	....	1,359	
do. Hampshire to Old Bay road.	4	....	....	1,303	
do. Old Bay road to High st.	6	....	....	721	
do. High st. south to opp. No. 340.	8	....	....	827	
do. from opposite No. 340 south and east to Parker.	6	....	....	2,330	6,981
Oak Grove ave., State st. to Shattuck.	6	....	....	815	
do. north from Oak Grove Park roadway.	2	132	....	....	
do. south from Bay.	8	....	....	1,046	1,993
Oak Grove Park roadway, Center st. to Oak Grove ave.	2	252	....	....	252
Oakland st., Sumner ave. to Belmont.	6	....	....	844	
do. Belmont ave. to Allen st. (less 98 feet at Dickinson st. and 76 feet at Allen st. = no 6" pipe).	6	....	....	3,261	
do. Belmont ave. to Allen st., 3,416 feet (see "Circuit Main," Forest park section).	24	....	....	——	4,105
Old Bay road, I. O., Pasco st. to Oak.	8	....	....	259	259
Olive st.	6	....	....	545	545
Orange st., Oakland to Allen.	6	....	....	2,589	
do. at Oakland (connecting).	16	....	....	6	2,595
Orchard st. (connected to 42" at river).	6	....	....	1,422	
do. (see "Little river supply").	42	....	....	——	1,422
Orchard st., I. O., south from South.	6	....	....	485	485
Orlando st.	6	....	....	791	791
Orleans court, Oak st. to 1½".	1½	255	....	....	
do. from 1½" to Orleans st. (P) (S. R.–7,871–8,111).	1½	182	....	....	437

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Orleans st., at State	8	....	....	64	
do. from 8″ to Union	4	....	....	687	
do. Union to Pendleton ave	6	....	....	856	1,607
Ormond st., north from Belmont ave	6	....	....	21	
do. from 6″ to Sumner ave	1½	398	....	....	419
Osgood st	8	....	....	954	
do. east from N. Main (hydrant only)	6	....	....	21	975
Oxford st., south from Forest Park ave.	6	....	....	416	416
Ozark st., Orange to Grand	6	....	....	617	617
Palm st., south from Orange	6	....	....	242	242
Palmer ave., east from Locust st	6	....	....	307	
do. east from 6″ (P) (S. R.–5,695)	2	678	....	....	985
Park st., Main to Willow	8	....	....	368	
do. Willow to Maple	6	....	....	776	1,144
Parker st., I. O., Main to Oak	6	....	....	3,677	
do. south from Oak	4	....	....	920	
do. from 4″ to Boston road	6	....	....	1,385	5,982
Parkside ave., north from Carew st	6	....	....	1,044	1,044
Parkwood st., south from Sumner ave	6	....	....	434	
do. south from 6″ (see S. R.–13,330)	1	21	....	....	455
Pasadena st	6	....	....	1,343	1,343
Pasco st., I. O., Essex to Old Bay road	6	....	....	1,118	1,118
Patton st., east from Main	4	....	....	814	
do. from 4″ to Chestnut	6	....	....	863	
do. east from Main (hydrant only)	6	....	....	16	1,693
Peabody lane, Main st. to Willow	2	364	....	....	364
Pearl st., Chestnut to Byers	6	....	....	1,351	
do. Byers to Federal	10	....	....	2,116	3,467
Pearl st. place, north from Pearl st.	6	....	....	269	
do. south from Pearl (P) (S.R.–8,496)	1½	142	....	....	411
Pease st., Catharine to Bowles	2	231	....	....	
do. Mason to Marion	6	....	....	68	299
Pecousic ave., Gardner st. (at Water) to 36″ *steel* pipe at Mill river crossing (north), 1,848 feet (see "Circuit Main," lower section)	36	....	....	——	
do. from north side to south side of Mill river, crossing same under bed of stream and close to easterly side of bridge, 318 feet of *steel** pipe (see "Circuit Main," lower section)	36	——*	....	....	
do. from 36″ *steel* pipe, at Mill river crossing (south), to "Circuit Main" 24″ cast-iron (near Main st.,)—179 feet (see "Circuit Main," lower section)	36	....	....	——	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Penacook ave., north from Carew st. (P) (S. R.–10,178)	1¼	387	....	....	
do. Wait st. to Langdon	6	....	....	98	485
Pendleton ave., Walnut st. to 8" cast-iron at Hancock (west)	8	....	1,252	....	
do. at Hancock st. (west)	8	....	....	31	
do. at Hancock st. (east)	8	....	....	7	
do. from 8" at Hancock st. (east) to Eastern ave	6	....	....	1,382	2,672
Phoenix st., Liberty to Cherrelyn ave. (east)	6	....	....	494	
do. Cherrelyn ave. (east) to 30" "Circuit Main"	8	....	....	118	612
Pine st., Walnut to Cedar (16" cross)	6	....	....	1,679	
do. Cedar (16" cross) to George (16" y)	16	....	....	1,480	
do. George (16" y) to Mill (8" gate, east)	16	....	....	1,425	4,584
Pine st., I. O., Main to beyond Chapman Valve Mfg. Co.'s shop	6	....	....	1,782	1,782
Pine st. court	2	370	....	....	370
Pineywoods ave., Washington boulevard to Washington road	6	....	....	1,745	1,745
Plainfield st., north from Bradford	6	....	....	17	
do. from 6" near Bradford, to John	4	....	....	276	
do. John to Fulton	6	....	....	1,076	
do. West st. to Washburn	6	....	....	609	
do. Washburn to Wason ave	8	....	....	4,468	6,446
Pleasant st. at State	6	....	....	50	
do. from 6" to Bay	4	....	450	....	500
Plumtree road, east from Eddywoods ave	6	....	....	1,677	
do. east from 6"	2	200	....	....	1,877
Plymouth st	6	....	....	506	506
Pomona st	6	....	....	995	995
Portland st	6	....	....	674	674
Portsmouth st., east from Eastern ave	6	....	....	243	243
Pratt st., Chestnut to Massasoit	6	....	....	655	655
Prescott st	6	....	....	369	369
Prince st., King to 1" at Lebanon	2	366	....	....	
do. at Lebanon	1	7	....	....	373
Princeton st	6	....	....	1,883	1,883
Prospect st., Chestnut to Massasoit	4	....	....	620	
do. Massasoit to Narragansett	8	....	....	407	
do. Narragansett to Carew, 516 feet (see "Circuit Main," north section)	36	....	....	——	1,027

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Prospect st. court, south from Prospect st.	2	201	....	....	201
Pynchon st., Main to opposite I. O. O. F. building	8	....	....	562	
do. from 8″ to Water	12	....	....	375	937
Quebec st., I. O., east from Lyons	6	....	....	441	441
Queen st., east from Walnut	4	....	....	427	
do. from 4″ to 8″ at Hancock	6	....	....	332	
do. at Hancock	8	....	....	30	789
Quincy st., Oak to 8″ at Hancock (west)	6	....	....	1,418	
do. at Hancock (west)	8	....	....	30	
do. at Hancock (east)	8	....	....	14	
do. from 8″ at Hancock (east) to Colton	6	....	....	1,687	3,149
Railroad st., Main to 12″ at Water	6	....	....	594	
do. at Water	12	....	....	7	601
Randall ave., north from Allen st	4	....	....	416	
do. north from 4″ (see S. R.–15,121)	1½	437	....	....	853
Randolph st., Maplewood terrace to Forest Park ave.	6	....	....	706	706
Ranney st., Orange to Kensington ave.	6	....	....	301	
do. south from Johnson	6	....	....	240	541
Rapalus ave., I. O., easterly from Parker st.	6	....	....	454	454
Raymond ave., north from Carew st. (P) (S. R.–8,618)	2	158	....	....	
do. north from private pipe	2	116	....	....	274
Reed st.	6	....	....	725	725
Revere st.	6	....	....	1,344	1,344
Richelieu court	4	....	....	487	487
Richelieu place (P) (S. R.–8,627)	2	145	....	....	145
Ridgewood place	6	....	....	583	583
Ridgewood terrace, west from Mulberry st. (top of hill)	4	....	....	247	
do. west from 4″ and north to Union st.	6	....	....	355	
do. north from Mulberry st.	2	121	....	....	723
Rimmon ave., Gladwood to Atwater terrace	6	....	....	1,038	1,038
Ringgold st.	6	....	....	764	764
Ripley place	6	....	....	212	212
Riverview st.	6	....	....	737	737
Riverview terrace (south roadway), Fort Pleasant ave. to Riverview st.	6	....	....	276	276
Rochelle st., south from Wilbraham road	6	....	....	797	797
Rogers ave., I. O., south from Main st.	6	....	....	275	
do. south from 6″ (see S. R.–18,562)	1	38	....	....	313

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Roseland st., west from Plainfield	6	....	....	901	901
Round hill, Plainfield st. to brow of hill	6	....	....	456	
do. 769 feet (see "Circuit Main," lower section)	36	....	....	——	456
Rowland st., west from Plainfield	6	....	....	377	
do. Plainfield to Fisk ave	8	....	....	625	1,002
Rush ave., south from Berkshire	1¼	275	....	....	275
Rutland st., north from Wilbraham road	1¼	146	....	....	
do. north from 1¼"	3	39	....	....	185
Rutledge ave	6	....	....	534	534
Sachem st., north from Dickinson	6	....	....	344	344
Sackett ave	1½	247	....	....	247
Salem st., Spring to Elliott	6	....	....	417	
do. Elliott to Mattoon (at turn)	6	....	....	104	521
Sanford st., east from Main	6	....	....	30	
do. from 6" to Market	4	....	....	117	
do. Market to Dwight	6	....	....	396	
do. Market to 4" at Dwight } parallel line	6	....	....	421	
do. at Dwight } parallel line	4	....	....	6	970
Sargeant st	6	....	....	984	984
School st	12	....	....	1,490	1,490
Scott st	6	....	....	661	661
Searle place, east from Walnut st	6	....	....	207	207
Second st. (East Springfield.)	6	....	....	655	655
Seventh st	12	....	....	935	935
Sewell st., Ludlow, southeast from 24" main (see S. R.–14,079–14,097)	1¼	552	....	....	552
Shamrock ave., south from Noel st	6	....	....	228	
do. south from 6" (see S. R.–13,367)	1¼	80	....	....	308
Shamrock st., west from Oakland	2	171	....	....	171
Sharon st	10	....	....	1,573	1,573
Shattuck st., Oak Grove ave. to Cortland st	6	....	....	1,253	1,253
Shefford st., north from Springfield	8	....	....	281	281
Sheldon st., east from Birnie ave	6	....	....	375	
do. east from 6" to near North Main (connecting to 36")	4	....	....	252	
do. 722 feet (see "Circuit Main," north section)	36	....	....	——	627
Sheridan lane, south from Morgan st	2	162	....	....	
do. south from 2"	1½	54	....	....	216
Sherman st., State to Bay	4	....	....	1,590	
do. Bay to opposite No. 164 (P) (S. R.–3,615–3,701)	1	112	....	....	1,702
Shillingford st., east from Eastern ave.	6	....	....	533	533
Silver st., east from Armory	4	....	....	593	593

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Smith st., at Maple	6	....	....	4	
do. from 6″ to Dorne	4	....	....	296	
do. Dorne to Knox	6	....	....	202	502
Sorrento st., Sumner ave. to Grenada ter.	6	....	....	538	
do. north from Grenada terrace (see S. R.–13,142–15,048–17,595–18,179–'80)	1½	332	....	....	870
South st., I. O., Healey ave. to beyond Orchard ave.	6	....	....	415	
do. east from 6″ (see S. R.–18,482)	1	121	....	....	536
Spencer ave., south from Sumner	6	....	....	567	
do. south from 6″	1½	217	....	....	784
Spring st., State to Lyman	6	....	....	2,404	2,404
Springfield st., Chestnut to Armory	8	....	....	3,449	
do. Armory to Gladwood ave.	12	....	....	153	
do. Gladwood ave. to Hamburg st.	6	....	....	815	4,417
Spruce st	8	....	....	754	754
Spruceland ave., Longhill st. to Magnolia terrace	6	....	....	1,111	1,111
Stafford st., westerly from Armory	6	....	....	398	398
State st., from railroad (west) to Water	4	....	....	314	
do. east from Water	24	....	....	40	
do. from 24″ near Water (east) to 12″ near Main (west)	8	....	....	906	
do. from 8″ to Main	12	....	....	79	
do. Main to Spring	16	....	....	1,956	
do. at Spring (east)	16	....	....	30	
do. from 16″ at Spring (east) to Federal	20	....	....	1,778	
do. Federal to Thompson	20	....	....	2,324	
do. Thompson to east of Westminster	24	....	....	490	
do. east of Westminster to Berkshire ave. (see Ludlow supply, "Main No. 1")	24	....	——	....	
do. near Water (east) connecting to and supplied by 24″ (parallel line)	6	....	....	12	
do. from connecting 6″ to Main st. (parallel line)	6	....	....	958	
do. east from Main (parallel line)	6	....	....	50	
do. from 6″ near Main to Maple (parallel line)	8	....	....	796	
do. Maple to opposite east line of State St. Grammar school (parallel line)	6	....	....	475	
do. connecting 6″ and 16″ opp. State St. Grammar school (parallel line)	8	....	....	31	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
State st., Oak to Hawley	4	....	....	2,373	
do. Catharine to Eastern ave. (south of and parallel to 24" main) for Catharine st.	12	....	....	138	
do. west from College (south of and parallel to 24" main) for College st.	8	....	....	93	12,843
State st. ave., north from State st.	1½	232	....	....	232
Stebbins st., at State	8	....	....	80	
do. from 8" to Union	4	....	....	710	
do. Union to Quincy	6	....	....	229	1,019
Stebbins st., Ludlow, west from Harris rd.	6	....	....	470	470
Sterling st., east from Armory	6	....	....	566	566
Sterns terrace, north from Central st.	2	475	....	....	
do. at end of street, from Avon place connecting line (for hydrant only)	6	....	....	12	487
St. James ave., at State st.	10	....	....	30	
do. from near State to Bay	8	....	87	....	
do. Bay st. to 8" at Dartmouth (south)	6	....	....	2,647	
do. at Dartmouth st. (south)	8	....	....	12	
do. at Dartmouth st. (north)	6	....	....	12	
do. from 6" at Dartmouth st. (north) to 6" near Lafayette	8	....	....	1,310	
do. from 8" near Lafayette st. to Dorchester	6	....	....	174	4,272
St. James boulevard (included in Ludlow supply, "Main No. 2")	30	....	....	———	
Stockbridge st., Main to Willow	6	....	....	358	
do. Willow to Maple	6	....	....	475	833
Suffolk st., south from Wilbraham road	6	....	....	1,391	1,391
Sullivan st., east from Armory	6	....	....	380	380
Summer st., Spring to Kibbe ave.	8	....	....	1,871	
do. northerly from street (crossing private property between Nos. 56 and 60) to near railroad tracks	4	....	....	210	
do. Kibbe ave. to Armory st.	8	....	....	1,169	3,250
Sumner ave., Longhill st. to Fort Pleasant ave.	6	....	....	737	
do. Fort Pleasant to White st.	8	....	....	6,820	
do. White st. to opposite No. 1,079 (near Allen st.)	6	....	....	3,322	10,879
Sumner terrace, Sumner ave. to Garfield st. (northerly portion crossing private property)	6	....	....	681	681

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Switzer ave., Emily st. to east of County	6	....	....	372	372
Sycamore st., Bay to Acorn	6	....	....	961	961
Sylvan ave., south from Belmont	6	....	....	731	731
Symonds ave., Worthington st. to North Church ave	4	....	....	151	151
Talcott ave	6	....	....	754	754
Taylor st., Main to Dwight	8	....	....	777	
do. east from Dwight	8	....	....	424	
do. from 8″ to Chestnut	6	....	....	36	1,237
Temple st	4	....	....	1,014	1,014
Tenth st	6	....	....	1,628	
do. east from Main (hydrant only)	6	....	....	25	1,653
Terrence st., at State	8	....	....	77	
do. from 8″ to Union	4	....	735	....	812
Thayer ave., north from Orange st	1½	138	....	....	138
Thomas st	6	....	....	651	651
Thompson st., State to Worthington, 2,289 feet (see "Circuit Main," hill section)	30	....	....	———	
Townsley ave	6	....	....	177	177
Tracy ave., Liberty st. to near Franklin	6	....	....	435	
do. from 6″ to Franklin st	2	30	....	....	465
Trenton st., east from Dickinson	4	....	....	148	148
Trinity terrace, south from Sumner ave	6	....	....	339	339
Tyler st., Oak to 10″ at Hancock (west)	6	....	1,411		
do. at Hancock (west)	10	....	....	28	
do. at Hancock (east)	10	....	....	9	
do. from 10″ at Hancock (east) to Colton	6	....	....	1,694	3,142
Union st., railroad to Water	8	....	....	437	
do. Water to Main	6	....	....	970	
do. Main to Willow	6	....	....	373	
do. Willow to Maple	6	....	....	751	
do. Maple to School	6	....	....	690	
do. School to Mulberry	8	....	....	981	
do. at Mulberry (east)	10	....	....	6	
do. from 10″ at Mulberry (east) to 10″ at Hancock (west)	8	....	2,780	....	
do. at Hancock (west)	10	....	....	38	
do. Hancock to Colton	6	....	....	1,692	8,718
Van Ness ave., east from Hamburg st	6	....	....	322	322
Vassar st	6	....	....	542	542
Ventura st	6	....	....	957	957
Vermont st., Pomona to Converse	6	....	....	846	846

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Vernon st., Main to 12" at Water	6	....	....	843	
do. at Water	12	....	....	17	
do. west from Main (short line)	8	....	....	83	943
Vine st	6	....	....	854	854
Vinton st., Liberty to near Franklin	6	....	....	644	644
Wait st., east from Armory (P) (S. R.–12,495)	1¼	267	....	....	
do. east from 1¼" (P) (S. R.–16,047)	1	259	....	....	
do. west from Penacook ave	6	....	....	413	939
Walden st., Dickinson to Commonwealth ave	6	....	....	298	
do. east from Commonwealth ave. (see S. R.–12,275)	1¼	192	....	....	490
Walker st., Water to Gardner ave	8	....	....	462	
do. Gardner ave. to railroad	6	....	....	223	685
Walnut st., State to Union	12	....	700	....	
do. Union to 12" at Cedar (north)	8	....	2,037	....	
do. at Cedar (north from Cedar st. 16")	12	....	....	26	
do. between Cedar st. 16" and Lebanon st. 16"	16	....	....	20	
do. from Lebanon st. 16" to Hancock	8	....	....	854	
do. Hancock to Hickory (at U. S. Watershops)	12	....	....	1,575	
do. Hancock to and crossing Hickory and thence in Mill st. to Mill river (at U. S. Watershops), 1,870 feet (see "Circuit Main," hill section)	24	....	....	——	5,212
Walter st	6	....	....	462	462
Waltham ave., south from Wilbraham road	6	....	....	666	666
Wareham st., Orange to Grand	4	....	....	602	602
Warehouse st., crossing private property north from Allen	6	....	....	733	733
Warner st	6	....	....	791	791
Warren ave., west from Hancock st	2	112	....	....	112
Warriner ave., east from Locust st	6	....	....	434	434
Warwick st., east from Heywood (P) (S. R.–6,720)	6	....	....	386	
do. completion to Armory	6	....	....	867	
do. for hydrants (P) (S. R.–6,720)	4	....	....	24	1,277
Washburn st., west from east line of Plainfield	6	....	....	1,460	1,460
Washington boulevard, west from Magnolia terrace	6	....	....	189	189

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Washington road, Sumner ave. to Washington boulevard	6	....	....	1,519	1,519
Washington st., east from Commonwealth ave	6	....	....	228	228
Wason ave., North Main st. to 12" gate at Fisk ave. (east)	12	....	....	960	
do. from 12" gate at Fisk ave. (east) to 8" pipe at Plainfield st.	10	....	....	1,016	
do. from 10" to Plainfield st. main.	8	....	....	15	
do. at Fisk ave. (west) (for hydrant only)	8	....	....	14	2,005
Water st., Railroad st. (north line) to Gardner, 5,152 feet (see "Circuit Main," lower section)	36	....	....	----	
Water st., I. O., east from Oak	8	....	....	50	
do. east from 8"	6	....	....	210	260
Waverly st	10	....	....	900	
do. at North Main (east and west).	6	....	....	31	931
Weaver ramble, north from Rimmon ave.	6	....	....	267	267
Webster st	6	....	....	672	672
Welcome place	6	....	....	256	256
Wellesley st	6	....	....	480	480
Wellington st., south from Wilbraham road	6	....	....	1,067	1,067
Wendell ave	6	....	....	457	457
West st., west from Plainfield	6	....	....	140	140
Westernview st	6	....	....	696	696
Westford ave	6	....	....	2,160	2,160
Westminster st., at State	8	....	....	35	
do. from 8" to Bay	6	....	1,077	....	
do. Bay to St. James ave	6	....	....	920	2,032
White st., Allen to hydrant, south of Dawson (opposite house No. 244)	6	....	....	2,587	
do. from 6" to Sumner ave	8	....	....	1,882	
do. Sumner ave. to Longfellow ter.	12	....	....	954	
do. Longfellow ter. to Ainsworth ave	8	....	....	2,206	
do. Ainsworth ave. to near Longmeadow line	6	....	....	388	8,017
Whitney place, west from Water st	4	....	....	396	396
Whittier ave	6	....	....	1,267	1,267
Wight place, east from Water st	6	....	....	280	
do. east from 6"	1½	157	....	....	437
Wilbraham ave., south from Wilbraham road	6	....	....	1,603	

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONTINUED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought Iron	Cement-Lined	Cast-Iron	
Wilbraham ave., 6" to King st.	8	....	....	545	
do. north from Alden st.	8	....	....	27	2,175
Wilbraham road, Eastern ave. to near Carlisle st. (west)	12	....	....	3,945	
do. from 12" to opposite House of Good Shepherd	8	....	....	1,639	
do. east from 8" (see S. R.–12,284–12,285)	1½	417	....	....	6,001
Wilcox st., Main to Water	6	....	....	961	
do. Water to near railroad	4	....	....	461	
do. west from 4" (crossing railroad)	1½	108	....	....	1,530
Willard ave., near State st. to Shattuck	6	....	....	714	
do. at Shattuck st. (north)	6	....	....	8	722
William st., railroad to Water	8	....	....	528	
do. Water to Dale	6	....	....	1,555	2,083
Willow st., State to Hubbard ave.	10	....	....	1,233	
do. north from Hubbard ave. (see S. R.–13,375)	1	56	....	....	1,289
Wilmont st., east from Dickinson	6	....	....	980	980
Winchester st	4	....	543	....	543
Windsor st	6	....	....	716	716
Winthrop st	6	....	....	688	688
Wolcott st	6	....	....	487	487
Woodbine ave., north from Hickory st.	4	....	....	319	
do. north from 4" (P) (S. R.–8,185)	1½	192	....	....	511
Woodlawn st., south from Belmont ave.	6	....	....	282	282
Woodmont st., east from Liberty	2	772	....	....	
do. west from Liberty	2	337	....	....	1,109
Woodside terrace, north from Forest Park ave.	4	....	....	319	
do. north from 4" (see S. R.–12,137)	1	20	....	....	
do. north from Belmont ave.	6	....	....	440	779
Woodworth ave.	2	469	....	....	469
Worcester ave.	6	....	....	828	
do. at Fisk ave. (for hydrant only)	6	....	....	18	846
Worcester st., I. O., Fiberloid Co. to Myrtle st	16	....	....	3,369	
do. Holly to Oak	6	....	....	2,066	
do. at Myrtle (for by-pass)	6	....	....	40	
do. Oak to Pine	2	598	....	....	
do. Pine to near Lyons	6	....	....	1,352	7,425
Worthington ct., south from Worthington st	6	....	....	285	285

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SUPPLY AND DISTRIBUTION MAIN PIPE.—CONCLUDED.

LOCATION OF PIPE	Size in Inches	LENGTH IN FEET			Totals in Feet
		Wrought-Iron	Cement-Lined	Cast-Iron	
Worthington st., Water to Cook's ave.	12	....	....	303	
do. Cook's ave. to Dwight st.	8	....	....	1,280	
do. Dwight to near No. 432–434	10	....	....	559	
do. near No. 432–434 to Bowdoin	8	....	....	4,686	
do. Bowdoin to St. James ave.	12	....	....	1,620	
do. Symonds ave. to Spring st. (parallel line)	6	....	....	2,288	10,736
"X" court, west from Dickinson st	4	....	....	252	252
Yale st., Dartmouth to Monmouth	6	....	....	1,656	1,656
York st., west from Main	10	....	....	286	
do. west from 10"	8	....	....	183	
do. from 8" to Hanover (west)	6	....	....	499	968
York st. ave., south from York st	1¼	174	....	....	174
Totals, December 1, 1911	...	*102,092	66,787	828,339	997,218

*Includes 66,124 feet of *steel* pipe, as follows:—
65,806 feet=*lock-bar* steel (see "Little River Supply");
318 feet=*riveted* steel (see "Circuit Main," lower section).

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APPENDIX VIII.

SUMMARY OF SUPPLY AND DISTRIBUTION MAIN PIPE IN USE DECEMBER 1, 1911.

SIZES.	Wrought-Iron.	Cement-Lined.	Cast-Iron.	Steel. L=*Lock-bar.* R=*Riveted.*	TOTALS.
1-inch.....	1,437	....	....	....	1,437
1¼-inch....	7,084	....	....	....	7,084
1½-inch....	7,818	....	....	.....	7,818
2-inch.....	18,498	....	....	....	18,498
3-inch.....	852	....	....	....	852
4-inch.....	279	2,817	54,295	....	57,391
6-inch.....	....	5,844	421,967	....	427,811
8-inch.....	....	7,424	138,674	....	146,098
10-inch.....	....	....	29,873	....	29,873
12-inch.....	....	1,056	43,120	....	44,176
16-inch.....	....	....	31,013	....	31,013
20-inch.....	....	....	6,628	....	6,628
24-inch.....	....	49,646	18,584	....	68,230
30-inch.....	....	....	50,364	L 2,163	52,527
36-inch.....	....	....	31,567	R 318	31,885
42-inch.....	....	....	2,254	L 61,792	64,046
54-inch.....	....	....	....	L 1,851	1,851
Feet,.....	35,968	66,787	828,339	66,124	997,218
Miles,....	6.81+	12.65	156.88+	12.52+	188.87—

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APPENDIX IX.

GATES SET IN 1911.

(INCLUDING THOSE ADDED.)

ONE INCH.

Dewey street, at Hobson,	1	
	—	1

ONE AND ONE-QUARTER INCH.

Greenacre square, at Foster street,	1	
Howard street, Ludlow, at North street (private),	1	
Ridgewood terrace, at Mulberry street,	1	
	—	3

ONE AND ONE-HALF INCH.

Boston road, at Jasper street (west), (private),	1	
Spencer avenue, at end of 6",	1	
Worcester street, I. O., 500′ west of Holly (air valve),	1	
	—	3

TWO INCH.

Applewood place, at end of pipe (flush),	1
Brunswick avenue, near No. 9 (flush),	1
Center street, I. O., east of Nos. 270-272 (flush),	1
Claremont street (flush),	1
Euclid avenue (flush),	1
Greenacre square, north roadway at angle (flush),	2
Hiawatha street, at No. 35 (flush),	1
Law street, I. O., at Falmouth avenue,	1
Main street, I. O., at No. 489 (flush),	1
Marengo park, at No. 500 (flush),	1
Marion street, near McKnight (flush),	1
North street, 100′ south of Sharon (flush),	1
North Main street, 200′ south of Osgood (flush),	1
Orange street, west of Allen (flush),	1
Orlando street, at No. 36 (flush),	1
Plumtree road, at end of 6",	1
Prescott street, near White (flush),	1

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School street, south of High (flush),..... 1
Spencer avenue, south of No. 35 (flush),..... 1
Tyler street, near Colton (flush),..... 1
Webster street, south of Franklin (flush),..... 1
Wellesley street, near Cornell (flush),..... 1
White street, south of Dawson (flush),..... 1
Windsor street, west of No. 15 (flush),..... 1
Woodmont street, at Liberty (west),..... 1
— 26

TWO AND ONE-HALF INCH.

Bridge street, at No. 151 (flush),..... 1
Buckingham street, south of Bay (flush),..... 1
College street, near Wilbraham road (flush),..... 1
Shattuck street, at Maynard (flush),..... 1
State street, opposite No. 553 (flush),..... 1
— 5

THREE INCH.

Clarendon street, near No. 15 (flush),..... 1
Ingersoll grove, west of No. 105 (flush),..... 1
Plainfield street, at Worcester (south), (flush),..... 1
Pynchon street, for office building, municipal group (private), 1
— 4

FOUR INCH.

Bridge street, for Nos. 87-89 (private),..... 1
Bridge street, for No. 121 (private),..... 1
Bridge street, for No. 151 (private),..... 1
Court street, for auditorium (private),..... 1
Court street, for office building, municipal group (private),.. 1
Hamburg street, N. W. corner Farnsworth (hydrant),..... 1
Harrison avenue, for Nos. 18-22 (private),..... 1
Liberty street, at Armory (sprinkler hydrant), (private),.... 1
North street, for Fire Station (private),..... 1
Oak street, I. O., for Springfield Foundry Co. (private),..... 1
Pynchon street, for office building, municipal group (private), 1
Pynchon street, for auditorium (private),..... 1
Rimmon avenue, in front of Mrs. Gardner's (hydrant),..... 1
Rimmon avenue, S. W. corner Gladwood (hydrant),..... 1

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State street, at Stebbins (east),..... 1
State street, at Stebbins (west),..... 1
State street, at Orleans (east),..... 1
State street, at Orleans (west),..... 1
State street, at Oak (east),..... 1
State street, at Terrence (east),..... 1
State street, at Terrence (west),..... 1
State street, at Hancock (east),..... 1
State street, at Hancock (west),..... 1
State street, midway Hancock and Hawley,..... 1
State street, at Hawley (west),..... 1
Sumner avenue, for schoolhouse (private),..... 1
Worthington street, for No. 457 (private),..... 1
Worthington street, at Symonds avenue (east),..... 1
Worthington court, for Superior Laundry (private),..... 1

— 29

SIX INCH.

Allen street, just east of railroad (hydrant),..... 1
Allen street, near Bethune (hydrant),..... 1
Allen street, at Bethune (east),..... 1
Applewood place, at Belmont avenue,..... 1
Applewood place, at end of main (hydrant),..... 1
Bethune street, at Allen,..... 1
Bethune street, at end of main (hydrant),..... 1
Birnie avenue, S. E. corner Alfred street (hydrant),..... 1
Birnie avenue, N. E. corner Portland street (hydrant),..... 1
Birnie avenue, S. E. corner Douglas street (hydrant),..... 1
Birnie ave., midway Douglas and Thomas streets (hydrant), 1
Birnie avenue, S. E. corner Thomas street (hydrant),..... 1
Birnie avenue, S. E. corner Greenwich street (hydrant),.... 1
Birnie ave., midway Medford and Hooker streets (hydrant), 1
Bond place, at Bridge street,..... 1
Bridge street, east of No. 131 (hydrant),..... 1
Bridge street, S. W. corner Main (hydrant),..... 1
Bridge street, at Water (east),..... 1
Bridge street, at Cook's avenue (east),..... 1
Bridge street, opposite Bond place (hydrant),..... 1
Brooklyn avenue, at Sumner,..... 1
Brooklyn avenue, S. E. corner Sumner (hydrant),..... 1

Digitized by Google

Brunswick avenue, at Brooklyn,..... 1
Brunswick avenue, S. E. corner Brooklyn (hydrant),..... 1
Brunswick avenue, N. E. corner Blaine street (hydrant),.... 1
Brunswick avenue, at Blaine street (north),..... 1
Buckingham street, S. E. corner Bay (hydrant),..... 1
Buckingham street, opposite No. 84 (hydrant),..... 1
Buckingham street, opposite No. 44 (hydrant),..... 1
Buckingham street, N. E. corner State (hydrant),..... 1
Center street, at Oak Grove Park roadway (north),..... 1
Center street, midway Oak Grove Park roadway and Acorn street (hydrant), ... 1
Central street, N. E. corner Spruce (hydrant),..... 1
Chester street, midway Central and Mill,..... 1
Chester street, N. E. corner Mill (hydrant),..... 1
Chester street, at Mill,..... 1
Claremont street, at Orange,..... 1
Claremont street, N. E. corner Crown (hydrant),..... 1
Clinton street, N. W. corner Main (hydrant),..... 1
Congress street, N. E. corner Main (hydrant),..... 1
County street, at Switzer avenue (south),..... 1
Cumberland street, near North (hydrant),..... 1
Crest street, at Lakeside avenue,..... 1
Crest street, 350′ west of Lakeside avenue (hydrant),..... 1
Crystal avenue, S. W. corner Dickinson street (hydrant),.... 1
Douglas street, at Birnie avenue,..... 1
Dwight street, opposite East Court (hydrant),..... 1
Eastern avenue, S. W. corner Marshall place (hydrant),..... 1
Eddywoods avenue, at Sumner,..... 1
Eddywoods avenue, 250′ north of Sumner (hydrant),..... 1
Eddywoods avenue, at Allen street (south),..... 1
Eddywoods avenue, at Allen street (north),..... 1
Eddywoods avenue, S. E. corner Plumtree road (hydrant),... 1
Eddywoods avenue, at Plumtree road (south),..... 1
Eleanor road, at White street,..... 1
Eleanor road, near Ruskin street (hydrant),..... 1
Elm street, S. W. corner Main (hydrant),..... 1
Emily street, at Switzer avenue,..... 1
Emily street, 400′ north of Switzer avenue (hydrant),..... 1
First street, at St. James boulevard,..... 1
First street, at Ludlow Main No. 2,..... 1

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Fisk avenue, N. W. corner Rowland street (hydrant),	1
Foster street, at Knox,	1
Foster street, at Greenacre square (south),	1
Foster street, at Greenacre square (north),	1
Foster street, N. E. corner Greenacre square (hydrant),	1
Fremont street, at No. 41 (hydrant),	1
Grace street, S. W. corner North Main (hydrant),	1
Goodrich street, at Liberty,	1
Greenacre square (south), at Foster street,	1
Greenacre square (north), at Foster street,	1
Hancock street, S. E. corner Lebanon (hydrant),	1
Hancock street, N. E. corner Alden (hydrant),	1
Hancock street, at Mill,	1
Hawley street, S. E. corner State (hydrant),	1
Hiawatha street, at Whittier avenue,	1
Hobson street, N. E. corner Bagley (hydrant),	1
Holly street, I. O., at Worcester,	1
Hooker street, at North Main (west),	1
Howard street, S. W. corner Main (hydrant),	1
Huntington street, midway (hydrant),	1
Irvington street, at end of main (hydrant),	1
Lakeside avenue, at Crest street (north),	1
Lakeside avenue, at end of main (hydrant),	1
Lakeside avenue, at Highland street (north),	1
Liberty street, for Storage Warehouse Co. (private),	1
Liberty street, N. E. corner Armory (hydrant),	1
Liberty street, S. E. corner Ledyard (hydrant),	1
Lowell street, at end of main (hydrant),	1
Lyman street, for Nos. 33-39 (private),	1
Kenwood park, N. W. corner Sumner avenue (hydrant),	1
Magnolia terrace, at Washington boulevard,	1
Main street, opposite No. 962 (hydrant),	1
Main street, south of Bemis & Call's (hydrant),	1
Main st., 123′ east of west line of Longhill street (hydrant),	2
Main street, I. O., at Rogers avenue (east),	1
Mansfield street, at White,	1
Mansfield street, at No. 42 (hydrant),	1
Maple street, N. E. corner Avon place (hydrant),	1
Marengo park, S. W. corner Dickinson street (hydrant),	1
Massachusetts avenue, at No. 112 (hydrant),	1

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Massasoit street, at Prospect (south),..... 1
Maynard street, at Shattuck (south),..... 1
Maynard street, S. W. corner Shattuck (hydrant),..... 1
Medford street, midway (hydrant),..... 1
Mill street, for Duckworth Chain Co. (private),..... 1
Mill street, at Chester (east),..... 1
Mill street, 350′ east of Chester,..... 1
Mill street, at No. 442,..... 1
Mill street, at No. 442 (hydrant),..... 1
Mill street, 350′ east of Chester (hydrant),..... 1
Mill street, at Central (south),..... 1
Miller street, at Armory,..... 1
Miller street, 600′ east of Armory (hydrant),..... 1
Monroe street, at No. 45,..... 1
Monroe street, opposite No. 45 (hydrant),..... 1
Monroe street, N. W. corner Hawley (hydrant),..... 1
Monroe street, at Hawley (east),..... 1
Morgan street, at No. 35,..... 1
Morgan street, at No. 35 (hydrant),..... 1
Morgan street, S. E. corner North Main (hydrant),..... 1
New street, at East Court (north),..... 1
New street, N. E. corner East Court (hydrant),..... 1
Newbury street, at Nos. 63-65,..... 1
Newbury street, N. E. corner Sherman avenue (hydrant),.... 1
Noel street, 300′ south of Mill (hydrant),..... 1
Noel street, at Mill,..... 1
North Main street, for Bosch Magneto Co. (private),..... 1
Nursery street, at Franklin (south),..... 1
Oak street, I. O., opposite Springfield Foundry Co. (hydrant), 1
Orlando street, at Belmont avenue,..... 1
Orlando street, midway Belmont and Sumner avenues,..... 1
Orleans street, S. E. corner State (hydrant),..... 1
Palmer avenue, in front of No. 30 (hydrant),..... 1
Pleasant street, at State,..... 1
Pleasant street, N. E. corner State (hydrant),..... 1
Plumtree road at Eddywoods avenue (east),..... 1
Plumtree road, at Tilton's house,..... 1
Portland street, N. W. corner North Main (hydrant),..... 1
Portland street, midway (hydrant),..... 1
Pynchon street, near Main (hydrant),..... 1

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Railroad street, S. W. corner Main (hydrant),..... 1
Rimmon avenue, at Green lane, east roadway (west),..... 1
Rochelle street, 350′ south of Wilbraham road,..... 1
Rochelle street, at end of main (hydrant),..... 1
Rogers avenue, I. O., at Main street,..... 1
Rogers avenue, I. O., 250′ south of Main street (hydrant),... 1
Rowland street, for Massachusetts Saw Works (private),.... 1
Rowland street, N. E. corner Plainfield (hydrant),..... 1
Sachem street, 250′ north of Dickinson (hydrant),..... 1
Second street, near railroad station (hydrant),..... 1
Second street, at St. James boulevard,..... 1
Second street, at Ludlow Main No. 2,..... 1
Shattuck street, at Oak Grove avenue (east),..... 1
Shattuck street, at College (west),..... 1
Shattuck street, at Maynard (west),..... 1
Shattuck street, S. W. corner Willard (hydrant),..... 1
Spencer avenue, at Sumner,..... 1
Spencer avenue, at No. 35 (hydrant),..... 1
State street, N. E. corner Westminster (hydrant),..... 1
State street, north side, opposite Terrence (hydrant),..... 1
State street, opposite Orleans (hydrant),..... 1
State street, N. E. corner St. James avenue (hydrant),..... 1
State street, opposite No. 541 (hydrant),..... 1
State street, opposite Nos. 513-517 (hydrant),..... 1
Stebbins street, S. E. corner State (hydrant),..... 1
Stockbridge street, west of Smith & Wesson office (hydrant), 1
Switzer avenue, at County street (west),..... 1
Switzer avenue, at County street (east),..... 1
Switzer avenue, 130′ east of County street (hydrant),..... 1
Terrence street, S. E. corner State (hydrant),..... 1
Thomas street, midway (hydrant),..... 1
Trinity terrace, at end of main (hydrant),..... 1
Vernon street, opposite Nos. 41-43,..... 1
Vernon street, opposite Nos. 41-43 (hydrant),..... 1
Washington boulevard, at Magnolia terrace (west),..... 1
White street, south of Priscilla place (hydrant),..... 1
White street, N. W. corner Sumner avenue (hydrant),..... 1
White street, N. W. corner Vermont (hydrant),..... 1
William street, N. W. corner Main (hydrant),..... 1
Willow street, for Joseph Wesson (private),..... 1

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Woodlawn street, at Belmont avenue,..... 1
Worcester street, I. O., opposite police station (hydrant),.... 1
Worcester st., I. O., midway Myrtle and Chestnut (hydrant), 1
Worcester street, I. O., at Holly (east),..... 1
Worthington street, opposite Alert (hydrant),..... 1
Worthington street, N. E. corner Autumn (hydrant),..... 1
Worthington court, at Worthington street,..... 1
Worthington court, at angle,..... 1
Worthington court, at end of main (hydrant),..... 1
—191

EIGHT INCH.

Armory street, at Miller,..... 1
Bay street, at Westminster (east),..... 1
Bay street, at Buckingham (east),..... 1
Birnie avenue, at Alfred street (south),..... 1
Birnie avenue, at Douglas street (north),..... 1
Birnie avenue, at Portland street (south),..... 1
Birnie avenue, at Medford street (south),..... 1
Birnie avenue, at Portland street (north),..... 1
Birnie avenue, at U. S. Spring Bed Co.,..... 1
Birnie avenue, at Birnie Paper Co. (north),..... 1
Birnie avenue, at Birnie Paper Co. (south),..... 1
Birnie avenue, at Thomas street (north),..... 1
Birnie avenue, at Thomas street (south),..... 1
Birnie avenue, at Greenwich street (south),..... 1
Birnie avenue, midway Medford and Hooker streets,..... 1
Birnie avenue, at Greenwich (north),..... 1
Birnie avenue, at Medford (south),..... 1
Birnie avenue, at Huntington street (north),..... 1
Birnie avenue, at Huntington street (south),..... 1
Birnie avenue, at Sheldon street (north),..... 1
Buckingham street, at Bay,..... 1
Buckingham street, at No. 84,..... 1
Buckingham street, at No. 44,..... 1
Buckingham street, at State,..... 1
Central street, at Mill (west),..... 1
Chestnut street, I. O., at Worcester,..... 1
County street, at Berkshire avenue,..... 1
Court street, S. E. corner Water (hydrant),..... 1

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Fisk avenue, at Rowland street (north),..... 1
Hawley street, at State (south),..... 1
Liberty street, at Armory (east),..... 1
Longhill street, at 24″ circuit main,..... 1
Main street, at 24″ circuit main (west),..... 1
Mill street, at Hancock (east),..... 1
Oak street, at State, near 20″ main,..... 1
Oak street, at State (south),..... 1
Oak Grove avenue, at Acorn street (south),..... 1
Orleans street, at State, near 20″ main,..... 1
Orleans street, at State (south),..... 1
Plainfield street, at Roseland (north),..... 1
Plainfield street, at Clayton (south),..... 1
Plainfield street, at Rowland (south),..... 1
Prospect street, at Massasoit (east),..... 1
Prospect street, midway Massasoit and Carew,..... 1
Rowland street, at Fisk avenue (west),..... 1
Rowland street, at Plainfield (east),..... 1
State street, for almshouse (private),..... 1
State street, at almshouse (hydrant),..... 1
Stebbins street, at State, near 20″ main,..... 1
Stebbins street, at State (south),..... 1
Terrence street, at State, at 20″ main,..... 1
Terrence street, at State (south),..... 1
Westminster street, at State,..... 1
White street, at Sumner avenue (north),..... 1
White street, at Vermont (north),..... 1
White street, at Scott (south),..... 1
Worthington street, at Autumn (east),..... 1
Worthington street, at Kibbe avenue (west),..... 1
— 58

TEN INCH.

Dwight street, at Hillman (south),..... 1
Dwight street, at Harrison avenue (north),..... 1
Dwight street, at Harrison avenue (south),..... 1
Dwight street, at East Court (north),..... 1
Dwight street, at Sanford (north),..... 1
Mill street, at Dickinson (east),..... 1

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Mill street, at Noel (east),..... 1
St. James avenue, at State street (north),..... 1
— 8

TWELVE INCH.

Bridge street, at Water (east),..... 1
Bridge street, east of No. 131,..... 1
Bridge street, at Main (east),..... 1
Court street, at Water (east),..... 1
East Court street, at Dwight, between 10″ and 6″,..... 1
East Court street, at Dwight (west),..... 1
East Court street, at New (west),..... 1
East Court street, at Market (east),..... 1
East Court street, at Main (east),..... 1
Main street, south of Bemis & Call,..... 1
Main street, at 24″ circuit (east),..... 1
White street, at Hiawatha (north),..... 1
White street, at Priscilla place (south),..... 1
— 13

SIXTEEN INCH.

Main street, at Essex (north),..... 1
Main street, at Franklin (south),..... 1
Main street, at Sharon (south),..... 1
Main street, at Hampden (south),..... 1
Main street, at Bridge (south),..... 1
Main street, at Harrison avenue (south),..... 1
Main street, at East Court (south),..... 1
North Main street, at Waverly (south),..... 1
North Main street, at Greenwich (north),..... 1
State street, at Main (east),..... 1
State street, at Willow (east),..... 1
State street, at Chestnut (west),..... 1
State street, opposite Central High School,..... 1
Worcester street, I. O., at Myrtle (west),..... 1
Worcester street, I. O., at Chestnut (west),..... 1
Worcester street, I. O., at Holly (west),..... 1
Worcester street, I. O., midway Holly and Fiberloid,..... 1
Worcester street, I. O., at Fiberloid (west),..... 1
Worcester street, in Fiberloid Company's yard,..... 1
— 19

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TWENTY INCH.

State street, at Pleasant (west),	1	
State street, at Oak (west),	1	
		— 2

TWENTY-FOUR INCH.

Myrtle street, I. O., at Main (south),	1	
State street, at Sherman (east),	1	
State street, at almshouse (west),	1	
		— 3

THIRTY INCH.

Worcester street, I. O., in Ludlow Main No. 2,	1	
		— 1
Total number of gates added in 1911,		366

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APPENDIX X.

GATES TAKEN OUT IN 1911.

(INCLUDING THOSE ABANDONED.)

ONE INCH.

Bond place, at Bridge street,..... 1
— 1

ONE AND ONE-QUARTER INCH.

Bond place, at Bridge street,..... 1
Mill street, at Central (south),..... 1
— 2

ONE AND ONE-HALF INCH.

Spencer avenue, at Sumner,..... 1
— 1

TWO INCH.

Benton street, south of Nos. 82-84 (flush),..... 1
Catharine street, at Pease (flush),..... 1
Cedar street, near cemetery gate,..... 1
Eastern avenue, at Greene street (flush),..... 1
Eastern avenue, at No. 176 (flush),..... 1
Everett street, east of Nos. 143-145 (flush),..... 1
Hickory street, at Training School (flush),..... 1
Marion street, near McKnight (flush),..... 1
Norfolk street, south of No. 53 (flush),..... 1
— 9

TWO AND ONE-HALF INCH.

Bridge street, at No. 151 (flush),..... 1
— 1

THREE INCH.

Orchard street, near No. 93 (flush),..... 1
Shattuck street, at Maynard (flush),..... 1
State street, opposite No. 553 (flush),..... 1
— 3

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FOUR INCH.

Bay street, at Thompson (east),	1
Bridge street, at Main, fire reservoir,	1
Bridge street, for No. 151 (private),	1
Bridge street, for No. 121 (private),	1
Bridge street, for Nos. 87-89 (private),	1
Buckingham street, near Bay (flush),	1
Clarendon street, near No. 15 (flush),	1
City Hall avenue, at Pynchon street,	1
City Hall avenue, for fire station (private),	1
Dwight street, at Harrison avenue (flush),	1
East Court street, at Market (east),	1
East Court street, at Market (west),	1
East Court street, at Dwight,	1
Elm street, for fire reservoir,	1
Hancock street, at State,	1
Harrison avenue, at Main, fire reservoir,	1
Hillman street, for Nos. 51-65 (private),	1
Howard street, at Main, fire reservoir,	1
Lyman street, at Dwight, fire reservoir,	1
Lyman street, at Main (hydrant),	1
Main street, for Nos. 115-119 (private),	1
Main street, at State, fire reservoir,	1
North Church avenue, at Cook's avenue (west),	1
Sargeant street, near Main (flush),	1
St. James avenue, near Dartmouth street (flush),	1
Wellesley street, near Cornell (flush),	1
Wilbraham avenue, near Wilbraham road (flush),	1
	— 27

SIX INCH.

Birnie avenue, at Alfred street (south),	1
Birnie avenue, at Douglas street (south),	1
Birnie avenue, at Greenwich street (north),	1
Birnie avenue, at Greenwich street (south),	1
Birnie avenue, at Huntington street (north),	1
Birnie avenue, at Sheldon street (north),	1
Birnie avenue, at Greenwich street (south), (connecting),	1
Bond place, at Bridge street,	1
Bridge street, at Main (west),	1

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Bridge street, at Main (west), (flush),	2	
Buckingham street, at Bay (south),	1	
Central street, at Beech, fire reservoir,	1	
Court street, at Water,	1	
Douglas street, at Birnie avenue,	1	
East Court street, at Main (hydrant),	1	
Liberty street, at Armory (east),	1	
Liberty street, at Armory (sprinkler hydrant), (private),	1	
Main street, at Congress (hydrant),	1	
Main street, east of Longhill,	1	
Pleasant street, at State,	1	
State street, N. E. corner Water (hydrant),	1	
State street, at St. James avenue (flush),	1	
Stebbins street, at State (south),	1	
Terrence street, at State (south),	1	
	—	25

EIGHT INCH.

Bridge street, at Water (east),	1	
Logan street, at King (north),	1	
Longhill street, at Main (south),	1	
Main street, at Longhill (west),	1	
Orleans street, at State,	1	
State street, opposite No. 541 (hydrant),	1	
State street, at almshouse (hydrant),	1	
Water street, at Court (hydrant),	1	
Westminster street, at State,	1	
	—	9

TWELVE INCH.

Bridge street, at Water (east),	1	
Oak street, at State,	1	
St. James avenue, at State street,	1	
	—	3

TWENTY-FOUR INCH.

Berkshire street, I. O., at Myrtle (west),	1	
	—	1
Total number of gates deducted in 1911,		82

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Number of gates December 1, 1910,.....		3,612
Number of gates added in 1911,.....	366	
Number of gates deducted in 1911,.....	82	
Net addition in 1911,.....		284
Total number of gates December 1, 1911,.....		3,896

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APPENDIX XI.

FIRE HYDRANTS SET IN 1911.

(ALL SIX INCH UNLESS OTHERWISE SPECIFIED.)

Allen street, just east of railroad,..... 1
Allen street, near Bethune,..... 1
Applewood place, at end of main,..... 1
Bethune street, at end of main,..... 1
Birnie avenue, S. E. corner Douglas street,..... 1
Birnie avenue, midway Douglas and Thomas streets,..... 1
Birnie avenue, S. E. corner Thomas street,..... 1
Birnie avenue, N. E. corner Portland street,..... 1
Birnie avenue, midway Medford and Hooker streets,..... 1
Birnie avenue, S. E. corner Greenwich street,..... 1
Bliss street, east of railroad,..... 1
Bridge street, at No. 131,..... 1
Bridge street, opposite Bond place,..... 1
Bridge street, S. W. corner Main,..... 1
Brooklyn avenue, S. E. corner Sumner,..... 1
Brunswick avenue, S. E. corner Brooklyn,..... 1
Brunswick avenue, N. E. corner Blaine street,..... 1
Buckingham street, N. E. corner State,..... 1
Buckingham street, east side, at church,..... 1
Buckingham street, east side, at No. 84,..... 1
Buckingham street, S. E. corner Bay,..... 1
Center street, midway Oak Grove Park roadway and Acorn st., 1
Central street, east of Spruce,..... 1
Chester street, N. E. corner Mill,..... 1
Claremont street, near Crown,..... 1
Clinton street, N. W. corner Main,..... 1
Congress street, N. E. corner Main,..... 1
Crest street, 350′ west from Lakeside avenue,..... 1
Crystal avenue, S. W. corner Dickinson street,..... 1
Cumberland street, N. W. corner North,..... 1
Dwight street, at New,..... 1
Dwight street, opposite East Court,..... 1
East Hooker street, N. E. corner North Main,..... 1
Eastern avenue, S. W. corner Marshall place,..... 1

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Eddywoods avenue, 250′ north of Sumner,..... 1
Eddywoods avenue, S. E. corner Plumtree road,..... 1
Eleanor road, near Ruskin street,..... 1
Elm street, S. W. corner Main,..... 1
Emily street, 400′ N. of Switzer avenue,..... 1
Ferry street, S. E. corner Main (4″),..... 1
Fisk avenue, at Rowland street,..... 1
Foster street, at Greenacre square (north),..... 1
Fremont street, in front of No. 41,..... 1
Grace street, S. W. corner North Main,..... 1
Harrison avenue, opposite Market street,..... 1
Hawley street, at State,..... 1
Hobson street, N. E. corner Bagley,..... 1
Howard street, S. W. corner Main,..... 1
Huntington street, opposite Nos. 31-33,..... 1
Irvington street, at park,..... 1
Kenwood park, N. W. corner Belmont avenue,..... 1
Lakeside avenue, at end of main,..... 1
Liberty street, N. W. corner Armory,..... 1
Little River pipe line, in yard of U. S. Whip Co., Westfield (private), added account previous years,..... 1
Lowell street, at end of main,..... 1
Main street, at Longhill,..... 1
Main street, south of Bemis & Call,..... 1
Main street, opposite No. 962,..... 1
Main street, in front of No. 360,..... 1
Mansfield street, at Nos. 42-44,..... 1
Maple street, N. E. corner Avon place,..... 1
Marengo park, N. E. corner Dickinson street,..... 1
Market street, S. W. corner Sanford (4″),..... 1
Massachusetts avenue, just south of No. 112,..... 1
Maynard street, S. W. corner Shattuck,..... 1
Medford street, north side, opposite Nos. 31-33,..... 1
Mill street, 350′ east from Chester,..... 1
Mill street, at No. 442,..... 1
Miller street, 600′ east of Armory,..... 1
Monroe street, N. W. corner Hawley,..... 1
Monroe street, between Hancock and Hawley,..... 1
Morgan street, S. E. corner North Main,..... 1
Morgan street, midway North Main and North,..... 1

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New street, at East Court,..... 1
Newbury street, N. E. corner Sherman road,..... 1
Noel street, 300′ south of Mill,..... 1
Norwood street, 101′ east of Pecousic avenue,..... 1
Oak street, I. O., near Springfield Foundry Co. (5″),..... 1
Orange street, at Ranney (4″),..... 1
Orchard street, front of Nos. 140-142,..... 1
Orlando street, midway,..... 1
Orleans street, at State,..... 1
Palmer avenue, in front of No. 30,..... 1
Pleasant street, N. E. corner State,..... 1
Plumtree road, at Tilton's house,..... 1
Portland street, N. W. corner North Main,..... 1
Portland street, north side, opposite Nos. 35-37,..... 1
Pratt street, midway,..... 1
Pynchon street, near Main,..... 1
Railroad street, S. W. corner Main,..... 1
Rimmon avenue, south side, at Mrs. Gardner's (4″),..... 1
Rimmon avenue, S. W. corner Gladwood (4″),..... 1
Rochelle street, at end of main,..... 1
Rogers avenue, I. O., at end of main (5″),..... 1
Rowland street, at Plainfield,..... 1
Sachem street, west side, 250′ from Dickinson,..... 1
Second street, near railroad station,..... 1
Shattuck street, S. W. corner Willard avenue,..... 1
Spencer avenue, at No. 35,..... 1
State street, N. E. corner Westminster,..... 1
State street, north side, opposite Terrence,..... 1
State street, opposite Orleans,..... 1
State street, N. E. corner St. James avenue,..... 1
State street, opposite No. 539,..... 1
State street, opposite No. 515,..... 1
Stebbins street, at State,..... 1
Stockbridge street, west of Smith & Wesson,..... 1
Switzer avenue, 130′ east of County street,..... 1
Terrence street, at State,..... 1
Thomas street, north side, opposite Nos. 29-31,..... 1
Trinity terrace, at end of main,..... 1
Vernon street, opposite Nos. 41-43,..... 1
White street, N. W. corner Vermont,..... 1

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White street, N. W. corner Sumner avenue,	1
White street, south of Priscilla place,	1
William street, N. W. corner Main,	1
Worcester street, I. O., opposite police station,	1
Worcester street, I. O., midway Chestnut and Myrtle,	1
Worthington court, at end of main,	1
Worthington street, N. E. corner Main,	1
Worthington street, opposite Alert,	1
Worthington street, N. E. corner Autumn,	1
Total number of hydrants added in 1911,	122

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APPENDIX XII.

FIRE HYDRANTS TAKEN OUT IN 1911.

Allen street, east of railroad,	1
Allen street, near Bethune,	1
Birnie avenue, S. E. corner Douglas street,	1
Birnie avenue, midway Douglas and Thomas streets,	1
Birnie avenue, 138′ south of Douglas street,	1
Bliss street, just east of railroad,	1
Bridge street, N. W. corner Main,	1
Bridge street, opposite Bond place,	1
Bridge street, N. E. corner Water,	1
Buckingham street, S. E. corner Bay,	1
Buckingham street, at No. 69,	1
Central street, east of Spruce,	1
City Hall avenue,	1
Clinton street, N. W. corner Main,	1
Congress street, N. E. corner Main,	1
Crystal avenue, S. W. corner Dickinson street,	1
Dwight street, at New,	1
East Court street, N. W. corner Dwight,	1
East Court street, N. W. corner New,	1
Eastern avenue, S. W. corner Marshall place,	1
East Hooker street, N. E. corner North Main,	1
Elm street, S. W. corner Main,	1
Ferry street, S. E. corner Main,	1
Fremont street, front of No. 41,	1
Grace street, S. W. corner North Main,	1
Harrison avenue, opposite Market street,	1
Howard street, S. W. corner Main,	1
Kenwood park, N. W. corner Belmont avenue,	1
Liberty street, N. E. corner Armory,	1
Lowell street, at end of main,	1
Main street, front of No. 360,	1
Main street, opposite No. 962,	1
Main street, south of Bemis & Call,	1
Main street, at Longhill,	1
Maple street, N. E. corner Avon place,	1
Marengo park, N. W. corner Dickinson street,	1

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Market street, S. W. corner Sanford,	1
Monroe street, west of Hawley,	1
Morgan street, S. E. corner North Main,	1
Morgan street, midway,	1
Norwood street, 101′ east of Pecousic avenue,	1
Orange street, S. W. corner Ranney,	1
Orchard street, front of Nos. 140-142,	1
Orlando street, midway,	1
Orleans street, at State,	1
Palmer avenue, front of No. 30,	1
Pleasant street, N. E. corner State,	1
Portland street, N. W. corner North Main,	1
Pratt street, midway,	1
Pynchon street, east of City Hall avenue,	1
Railroad street, S. W. corner Main,	1
Rimmon avenue, south side, at Mrs. Gardner's,	1
Rimmon avenue, S. W. corner Gladwood,	1
State street, opposite No. 539,	1
State street, N. E. corner St. James avenue,	1
Stockbridge street, west of Smith & Wesson,	1
Vernon street, opposite Nos. 41-43,	1
Vernon street, S. W. corner Main,	1
William street, S. W. corner Main,	1
Worcester street, I. O., opposite police station,	1
Worthington street, N. E. corner Main,	1
Worthington street, opposite Alert,	1
Worthington street, N. E. corner Autumn,	1
Total number of public hydrants deducted in 1911,	63

Number of public hydrants, as per report December 1, 1910,	1,335
Number of public hydrants added in 1911,	121
Number of public hydrants deducted in 1911,	63
Net addition, 1911,	58
Total number of public hydrants, December 1, 1911,	1,393

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Number of private hydrants, December 1, 1910,.....	106	
Number of private hydrants added in 1911,.....	1	
Total number of private hydrants, December 1, 1911,		107
Total number of hydrants connected with the works, December 1, 1911,.....		1,500

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APPENDIX XIII.

FIRE HYDRANTS

IN USE DECEMBER 1, 1911.

ABBREVIATIONS.

N.=North.	C.=Chapman.
S.=South.	Co.=Corey.
E.=East.	M.=Matthews.
W.=West.	P.=Perkins.
r. g.=rubber gate.	s. con.=steamer connection.

☞All hydrants may be considered 4″, unless otherwise designated.

☞All hydrants may be considered as having two nozzles, unless otherwise designated.

☞The pressure is in pounds per square inch, and is estimated static pressure with elevation of water in Provin mountain reservoir taken at 400′ above mean sea level or state datum.

☞Figures in parenthesis indicate distance of hydrant-gate from hydrant.

	Make.	Pressure.	Main Pipe.
ABBE AVENUE.			
N. W. corner Plainfield st.	C.	147	6″
N. side, 120′ W. of No. 20, 6″ s. con. (*gate* 5′)	Co.	147	6″
N. side, 3′ E. of No. 154, 6″ s. con.	C.	147	6″
ACUSHNET AVENUE.			
N. side, on E. line of No. 38	C.	144	6″
N. side, 8′ E. of No. 76	C.	141	6″
ADAMS STREET.			
S. side, 250′ W. of Richelieu court	C.	145	8″
ALBANY STREET.			
S. side, 175′ E. of Standard Oil Co.'s building, 8″ 4-way	C.	116	30″
N. side, 125′ W. of Standard Oil Co.'s building, 6″ (*gate* 2′ 8″)	Co.	116	8″
N. side, 427′ W. of Standard Oil Co.'s building, 6″ (*gate* 3′ 3″)	Co.	116	8″

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	Make.	Pressure.	Main Pipe.
ALDEN STREET.			
N. side, 275′ E. of Hancock	C.	87	6″
N. side, 7′ E. of No. 80	C.	87	6″
N. side, 7′ W. of Eastern avenue	C.	87	6″
*N. side, 5′ W. of Logan, 6″ (*gate* 3′ 6″)	Co.	87	6″
N. side, 8′ W. of Hickory, 6″ s. con.	C.	87	8″
ALDERMAN STREET.			
S. side, 6′ E. of Sorrento, 6″ s. con. (*gate* 7′)	C.	91	6″
ALEXANDER STREET.			
N. side, 6′ E. of North	C.	143	6″
ALFRED STREET.			
N. W. corner North Main, 6″ 3-way (*gate* 3′ 10″)	Co.	146	6″
ALLEN STREET.			
S. W. corner Mill, 6″ (*gate* 18′)	Co.	106	24″
N. side, 110′ W. of Hunt terrace	C.	90	6″
N. side, 225′ E. of Randall avenue	C.	93	6″
N. side, 454′ W. of railroad tracks	C.	89	6″
N. side, 76′ E. of railroad tracks, 6″ (*gate* 3′ 9″)	Co.	88	6″
N. side opposite W. line of Dell terrace, 6″ (*gate* 3′ 9″)	Co.	83	6″
N. W. corner Plumtree road, 4″ 1-way	C.	83	6″
ALLENDALE STREET.			
N. W. corner Chestnut	C.	141	6″
N. side, 9′ E. of E. line of Nos. 30-32	C.	140	6″
AMHERST STREET.			
S. W. corner Lafayette	C.	83	6″
ANDREW STREET.			
N. E. corner State	P.	84	4″
E. side, 65′ N. of Dawes	C.	84	4″
APPLEWOOD PLACE.			
W. side, at end of street, 6″ (*gate* 3′ 8″)	Co.	92	6″
ARBOR STREET.			
E. side, 75′ N. of Butler	C.	131	6″

* Set since December 1, replacing 4″ Perkins.

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	Make.	Pressure.	Main Pipe.
Arbutus Street.			
E. side, 269′ S. of Bay (*gate* 3′ 3″)	Co.	72	6″
Arch Street.			
N. W. corner North Main	P.	145	6″
N. side, 15′ W. of W. line of No. 36	C.	145	6″
S. side, 12′ W. of Birnie avenue, 6″ (*gate* 11′)	P.	145	6″
Armory Street.			
S. E. corner Magazine	C.	89	4″
E. side, 100′ S. of Summer, 6″ s. con., r.g. (*gate* 4′)	C.	104	8″
E. side, 20′ E. of bridge, 19′ N. of track (at paint shops)	C.	116	8″
W. side, 18′ N. of Warwick, 6″ s. con.	C.	109	8″
E. side, 36′ N. of Wolcott, 6″ s. con	C.	96	8″
E. side, 2′ N. of Carew (*gate* 15′)	C.	87	8″
E. side, 3′ S. of Governor, 6″ 3-way (*gate* 3′)	C.	86	8″
E. side, 29′ S. of S. line of Truant School, 6″ s. con.	C.	89	8″
Armory Street Court.			
S. E. corner Armory street avenue, 6″ s. con	C.	100	6″
Ashley Street.			
N. side, 450′ E. of Cedar	C.	88	6″
N. side, 435′ W. of Walnut, front of No. 92	C.	88	6″
N. side, 52′ W. of Walnut, 6″ (*gate* 5′ 7″)	Co.	88	6″
Ashmun Street.			
E. side, 33′ S. of N. line of Adams	C.	140	8″
Aster Street.			
E. side, 340′ S. of Bay, 6″ (*gate* 5′)	Co.	72	6″
Atwater Terrace.			
N. side, 13′ E. of W. line of No. 210	C.	67	6″
N. side, 276′ W. of hydrant, front of No. 210, 6″ (*gate* 4′ 9″)	Co.	67	6″
Auburn Street.			
S. W. corner Main	C.	143	6″
N. side, 2′ W. of No. 34	C.	143	6″

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	Make.	Pressure.	Main Pipe.
Austin Street.			
N. W. corner State, 6″ (*gate* 4′ 10″)	Co.	80	8″
W. side, 360′ N. of State, 6″ (*gate* 3′ 2″)	Co.	80	8″
Avon Place.			
N. side, 430′ E. of Maple street	C.	123	4″
Avon Place—Madison Avenue (Connecting Line).			
S. side Avon place, 675′ E. of Maple street, front of No. 67, 8″ 4-way (*gate* 4′)	C.	123	8″
S. side Cemetery avenue, 677′ E. of Maple street, 8″ 4-way (*gate* 3′)	C.	123	8″
Bancroft Street.			
S. W. corner Chestnut	C.	142	6″
S. side, front of No. 33	C.	142	6″
Banks Place.			
S. side, 197′ W. of Water street, opposite No. 20, 6″ s. con., r. g. (*gate* 16′ 9″)	C.	143	6″
Bay Path.			
E. side, 5′ N. of Berkshire avenue, 6″ s. con., r. g. (*gate* 6′ 6″)	C.	79	8″
E. side, 370′ N. of Berkshire avenue, 6″ s. con., r. g. (*gate* 6′ 6″)	C.	79	8″
E. side, 770′ N. of Berkshire avenue, 6″ s. con., r. g. (*gate* 6′ 6″)	C.	79	8″
Bay Street.			
N. side, E. of Thompson, 6″ (*gate* 3′ 3″)	Co.	85	8″
S. E. corner Bowles	C.	83	8″
S. E. corner Girard avenue	C.	83	8″
S. side, 37′ E. of Dawes	C.	83	8″
S. E. corner Oak Grove avenue	C.	82	8″
S. side, 7′ E. of Sycamore, 6″ (*gate* 5′ 3″)	Co.	78	8″
S. side, 8′ E. of Edgewood, 6″ (*gate* 5′ 3″)	Co.	74	8″
S. E. corner Aster, 6″ (*gate* 5′ 6″)	Co.	72	8″
Beacon Street.			
S. side, 4′ W. of Colton (*gate* 5′)	C.	83	6″

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	Make.	Pressure.	Main Pipe.
Beauchamp Street.			
N. side, 2′ E. of No. 48	C.	87	6″
Beaumont Street.			
W. side, 5′ N. of Belmont avenue, 6″ s. con.	C.	92	6″
E. side, 8′ S. of Belmont avenue, 6″ (*gate* 4′)	Co.	92	6″
E. side, 5′ N. of Sumner avenue, 6″ (*gate* 4′)	Co.	92	6″
Beech Street.			
E. side, 250′ S. of Florence	C.	90	6″
Bellevue Avenue.			
E. side, 8′ N. of S. line of La Verne street	P.	91	8″
S. side, 5′ W. of W. line of Dickinson street	C.	98	8″
Belmont Avenue.			
N. side, 250′ W. of Bellevue	C.	93	8″
N. side, 75′ E. of Bellevue	C.	93	8″
N. side, 2′ E. of E. line of Commonwealth, 6″ s. con.	C.	91	8″
N. side, 20′ W. of Bryant street, 6″ s. con., r. g. (*gate* 5′ 6″)	C.	91	8″
N. side, 30′ E. of Longfellow terrace, 6″ s. con., r. g. (*gate* 5′ 4″)	C.	91	8″
N. side, 7′ W. of Prescott street, 6″ 3-way, r. g. (*gate* 5′ 2″)	C.	91	8″
N. W. corner White street, 6″ (*gate* 5′ 6″)	Co.	91	8″
Belvidere Avenue.			
E. side, 11′ N. of Fountain place, 6″ s. con. (*gate* 5′ 7″)	C.	90	6″
Benton Avenue.			
N. E. corner Benton street, 6″ s. con	C.	84	6″
Benton Street.			
S. E. corner State	C.	84	4″
E. side, 17′ N. of Wilbraham road, 6″ s. con.	C.	84	6″
Berendo Street.			
E. side, 12′ S. of Alderman street, 6″ s. con.	C.	91	6″

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	Make.	Pressure.	Main Pipe.
Berkeley Street.			
N. W. corner Monmouth	C.	83	6″
Berkshire Avenue.			
*N. W. corner Eastland street, 6″ (*gate* 6′ 4″)	Co.	84	24″
Besse Place.			
N. side, 9′ E. of No. 30 (*private*)	C.	143	6″
Bethune Street.			
E. side, at end of street, 6″ (*gate* 4′ 5″)	Co.	83	6″
Bevier Street.			
N. side, 5′ E. of Armory	C.	97	6″
N. side, 4′ E. of No. 52 (*gate* 2′ 5″)	C.	97	6″
Birnie Avenue.			
S. E. corner Wason, 6″ s. con. (*gate* 10′ 2″)	C.	146	8″
E. side, 200′ N. of Grace street	C.	146	8″
E. side, 11′ S. of Grace street, 6″ 3-way (*gate* 8′)	C.	146	8″
E. side, 4′ N. of Walter street, 6″ 3-way (*gate* 10′)	C.	146	8″
S. E. corner Alfred street, 6″ (*gate* 9′ 9″)	P.	147	8″
S. E. corner Douglas street, 6″ s. con. (*gate* 8′ 9″)	C.	146	8″
E. side, midway Douglas and Thomas streets, 6″ (*gate* 9′)	Co.	146	8″
S. E. corner Thomas street, 6″ (*gate* 8′ 3″)	Co.	146	8″
N. E. corner Portland street, 6″ (*gate* 3′ 10″)	Co.	146	8″
E. side, midway Medford and Hooker streets, 6″ (*gate* 4′ 9″)	Co.	146	8″
S. E. corner Greenwich street, 6″ (*gate* 3′)	Co.	146	8″
W. side, 9′ N. of Arch street, 6″ 3-way (*gate* 6′ 5″)	C.	146	36″
Blake Hill.			
N. E. corner Fort Pleasant ave., 6″ (*gate* 4′ 3″)	Co.	120	6″
S. side, 110′ W. of Belmont ave., 6″ (*gate* 8′ 8″)	Co.	112	6″
Bliss Street.			
N. side, 7′ W. of Main, 8″ 4-way (*gate* 3′ 9″)	Co.	145	10″
N. side, 2′ W. of E. line of No. 34, 6″ (*gate* 3′ 8″)	Co.	144	10″

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BLISS STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
N. side, 6′ E. of No. 68, 6″ (*gate* 6′)	Co.	144	10″
S. side, 260′ W. of Water, 6″ s. con. (*gate* 11′ 6″)	C.	146	6″
S. side, 340′ W. of Water, 6″ s. con. (*gate* 12′)	C.	146	6″
BLOOMFIELD STREET.			
N. side, 5′ W. of Pasadena, 6″ s. con.	C.	91	6″
N. side, 5′ W. of Earl, 6″ s. con., r. g. (*gate* 7′ 4″)	C.	90	6″
N. side, 4′ E. of Oakland, 6″ s. con., r. g. (*gate* 3′ 9″)	C.	90	6″
BOND PLACE.			
Center of place, 157′ S. of Bridge street	C.	143	6″
BOND STREET.			
S. E. corner Main (*gate* 14′ W.)	C.	145	6″
N. side, front of No. 48	C.	145	6″
N. side, on E. line of No. 94	C.	145	6″
BOSTON ROAD.			
N. E. corner Jasper street, 6″ s. con.	C.	78	6″
*N. side, at schoolhouse, 6″ (*gate* 11′ 3″)	Co.	78	6″
N. side, opposite Barber street, 6″ s. con.	C.	78	6″
N. side, 175′ E. of Wilton street, 6″ s. con. (*gate* 12′ 4″)	Co.	78	6″
BOSTON & ALBANY PROPERTY.			
Off of 36″ main, 8″ 4-way (*gate* 11′ 9″ W.)	C.	142	36″
BOWDOIN STREET.			
E side, 51′ S. of Ingersoll Grove	C.	89	6″
E. side, 2′ S. of Worthington	P.	88	4″
E. side, 375′ N. of Lincoln	C.	86	4″
E. side, 18′ N. of St. James avenue	C.	86	4″
BOWLES STREET.			
E. side, 332′ N. of McKnight	C.	83	4″
E. side, 3′ N. of McKnight	C.	83	4″

*Set since December 1.

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	Make.	Pressure.	Main Pipe.
Boylston Street.			
E. side, 10′ S. of No. 29	C.	143	6″
Bradford Street.			
N. side, on W. line of No. 38	C.	142	6″
Bridge Street.			
N. E. corner Water, 6″ (*gate* 6′)	Co.	144	6″
N. side, 6′ W. of Broadway, 6″ s. con. (*gate* 4′ 2″)	C.	144	6″
S. side, at No. 131, 6″ (*gate* 2′ 4″)	Co.	144	12″
N. side, opposite Bond place, 6″ (*gate* 3′ 6″)	Co.	144	6″
S. W. corner Main, 6″ (*gate* 3′ 9″)	Co.	143	12″
N. E. corner Main, 6″ s. con., r. g. (*gate* 2′)	C.	143	6″
S. side, 4′ E. of Barnes, 8″ 4-way (*gate* 22′ 3″)	C.	143	6″
N. side, 33′ W. of Stearns square (E)	C.	144	6″
N. side, 24′ E. of Dwight, 6″ 3-way (*gate* 5′ 9″)	Co.	144	6″
Bristol Street.			
E. side, 328′ S. of Wilbraham road, 6″ (*gate* 4′)	Co.	83	6″
Broad Street.			
S. side, 3′ W. of Main, 8″ 4-way (*gate* 7′)	Co.	147	10″
S. side, 72′ E. of Pecousic avenue, 6″ (*gate* 6′ 3″)	Co.	147	10″
S. side, 146′ W. of Pecousic avenue, 6″ (*gate* 6′ 6″)	Co.	147	10″
S. side, 2′ E. of Hanover, 8″ 4-way (*gate* 6′ 5″)	C.	147	10″
Brookline Avenue.			
N. side, 4′ W. of Chestnut, 6″ s. con.	C.	142	6″
Brooklyn Avenue.			
S. E. corner Sumner, 6″ (*gate* 3′ 8″)	Co.	90	6″
Brunswick Avenue.			
S. E. corner Brooklyn, 6″ (*gate* 3′ 8″)	Co.	90	6″
N. E. corner Blaine street, 6″ (*gate* 3′ 8″)	Co.	90	6″

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	Make.	Pressure.	Main Pipe.
Bryant Street.			
E. side, 8′ S. of Sumner avenue, 6″ s. con. (*gate* 4′ 6″)	Co.	92	8″
E. side, 409′ S. of Sumner avenue, 6″ s. con. (*gate* 4′ 10″)	Co.	92	8″
Buckingham Street.			
W. side, 13′ S. of Clarendon	C.	83	4″
N. E. corner Buckingham place	C.	83	4″
S. E. corner Bay, 6″ (*gate* 3′ 10″)	Co.	84	8″
E. side, at No. 84, 6″ (*gate* 3′ 10″)	Co.	84	8″
E. side, at No. 44, 6″ (*gate* 3′)	Co.	84	8″
N. E. corner State, 6″ (*gate* 4′)	Co.	84	8″
Burlington Street.			
W. side, 5′ N. of Belmont avenue, 6″ s. con	C.	92	6″
Butler Street.			
E. side, 339′ S. of Pearl, 6″ s. con., r. g. (*gate* 5′ 6″)	C.	111	10″
E. side, 173′ N. of Frost, 6″ s. con., r. g. (*gate* 5′ 6″)	C.	111	10″
N. side, 200′ E. of Arbor, 6″ s. con. (*gate* 3′ 4″)	C.	131	6″
Byers Street.			
E. side, 339′ S. of Pearl, 6″ s. con., r. g. (*gate* 5′6″)	C.	111	10″
E. side, 173′ N. of Frost, 6″ s. con., r. g. (*gate* 5′ 6″)	C.	111	10″
E. side, 128′ S. of Frost, 6″ s. con., r. g. (*gate* 5′ 3″)	C.	112	10″
N. E. corner State, 6″ s. con., r. g. (*gate* 31′ 2″)	C.	112	10″
Calhoun Street.			
N. side, 8′ E. of North	C.	144	6″
N. side, 8′ W. of No. 114, 6″ 3-way (*gate* 5′ 5″)	Co.	142	6″
Cambridge Street.			
E. side, 345′ S. of Bay	C.	83	6″
E. side, 515′ N. of Burr	C.	84	6″
Carew Place.			
E. side, on N. line of No. 15, 5″ s. con	C.	144	4″

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	Make.	Pressure.	Main Pipe.
Carew Street.			
S. side, 5′ E. of No. 27, 6″ (*gate* 5′ 8″)	Co.	144	20″
S. side, 5′ E. of No. 57, 6″ (*gate* 4′ 8″)	Co.	144	20″
N. E. corner North, 6″ s. con.	C.	144	8″
N. side, 7′ E. of No. 130, 6″ s. con. (*gate* 4′)	C.	144	8″
N. E. corner Chestnut	C.	142	6″
N. W. corner Massasoit, 6″ 3-way (*gate* 11′ 8″)	Co.	135	6″
N. side, opposite Arbor, 6″ 3-way (*gate* 7′ 3″)	Co.	131	6″
N. E. corner Maycourt, 6″ 3-way (*gate* 9′ 7″ S.)	C.	86	30″
S. side, 450′ E. of Liberty, opposite Nos. 822-824, 6″ 3-way (*gate* 11′)	C.	83	30″
S. side, 850′ E. of Liberty, opposite No. 862, 6″ 3-way (*gate* 9′ 4″)	C.	83	30″
Carlisle Street.			
E. side, 8′ S. of Wilbraham road, 6″ s. con.	C.	84	6″
S. E. corner Byron avenue, 17′ S. of No. 54, 6″ s. con.	C.	84	6″
Cass Street.			
E. side, opposite Linden, 6″ s. con., r. g. (*gate* 2′ 9″)	C.	129	8″
E. side, 250′ N. of Franklin, 6″ s. con., r. g. (*gate* 2′ 9″)	C.	129	8″
E. side, 2′ S. of Franklin	C.	129	6″
Catharine Street.			
E. side, 340′ N. of State	C.	84	12″
E. side, 30′ N. of Pease	C.	84	12″
E. side, 7′ S. of N. line of McKnight	C.	83	12″
S. E. corner Bay	C.	83	12″
Cedar Street.			
N. side, 13′ W. of Walnut, 6″ (*gate* 6′ 1″)	Co.	87	16″
N. side, 143′ E. of James, 6″ (*gate* 5′ 2″)	Co.	88	16″
N. side, 172′ W. of James, 6″ (*gate* 5′ 3″)	Co.	88	16″
N. E. corner Pine, 6″ 3-way, r. g. (*gate* 4′)	C.	89	16″
Center Street.			
E. side, 325′ N. of Shattuck, 6″ 3-way (*gate* 6′)	C.	85	6″
E. side, 300′ N. of Oak Grove Park Roadway, 6″ (*gate* 5′ 8″)	Co.	85	6″

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	Make.	Pressure.	Main Pipe.
Central Street.			
N. E. corner Main	C.	146	8″
N. side, 281′ W. of Morris, 6″ s. con.	C.	142	8″
N. side, 25′ E. of Morris, 6″ (*gate* 2′ 3″)	Co.	137	10″
N. side, 24′ E. of Maple, 6″ s. con. (*gate* 2′ 6″)	C.	118	8″
N. side, 9′ E. of Sterns terrace, 6″ s. con. (*gate* 5′ 3″)	C.	102	8″
S. E. corner Cedar, 6″ 3-way (*gate* 6′ 3″)	C.	91	8″
S. side, 16′ N. of No. 319, 6″ (*gate* 21′ 3″)	Co.	90	8″
N. side, 3′ E. of Spruce, 6″ (*gate* 5′ 8″)	Co.	91	8″
N. side, 18′ E. of Hancock, 6″ (*gate* 3′ 8″)	Co.	103	8″
N. side, 6′ W. of Mill, 6″ s. con. (*gate* 7′ 10″)	C.	107	8″
Chapin Terrace.			
N. side, 10′ W. of Massasoit, 6″ s. con., r. g. (*gate* 4′ 8″)	C.	135	8″
N. side, 4′ E. of Chestnut, 6″ s. con., r. g. (*gate* 6′ 3″)	C.	139	8″
Charles Street.			
W. side, 174′ S. of Liberty	C.	135	4″
W. side, 7′ N. of S. line of No. 70, 6″ s. con.	C.	135	6″
Charter Avenue.			
S. side, 225′ E. of Walnut, 6″ (*gate* 5′)	Co.	87	6″
Chase Avenue.			
N. side, 4′ E. of Fort Pleasant, 6″ s. con.	C.	111	6″
N. side, 9′ W. of Riverview street, 6″ s. con.	C.	98	6″
Cherrelyn Avenue.			
E. side, 10′ S. of Phœnix street, 6″ s. con.	C.	85	6″
Cherry Lane.			
W. side, 127′ N. of Clifton avenue	C.	108	6″
W. side, 3′ N. of S. line No. 51	C.	98	6″
W. side, 4′ S. of Central street	C.	92	6″
Chester Street.			
E. side, 430′ S. of Central, 6″ s. con. (*gate* 5′)	C.	107	6″
N. E. corner Mill, 6″ (*gate* 3′ 9″)	Co.	117	6″

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	Make.	Pressure.	Main Pipe.
CHESTNUT STREET.			
E. side, 8′ N. of State, 6″ s. con.	C.	135	6″
W. side, 454′ S. of Edwards, opposite N. vestry entrance to Christ church	C.	129	8″
W. side, 234′ S. of Edwards, 6″ s. con.	C.	129	8″
W. side, 5′ S. of Edwards, 6″	C.	128	8″
W. side, 8′ N. of Harrison avenue, 6″ s. con. (*gate* 4′ 2″)	C.	134	12″
W. side, opposite Mattoon, 6″ s. con. (*gate* 4′ 6″)	C.	134	12″
W. side, 10′ S. of N. line of Pearl, 6″ s. con. (*gate* 4′ 4″)	C.	136	12″
W. side, 13′ N. of Bridge, 6″ s. con. (*gate* 3′ 10″)	C.	137	12″
W. side, 5′ S. of Worthington, 6″ s. con. (*gate* 4′ 8″)	C.	140	12″
E. side, 5′ S. of N. line of Bemis place	C.	140	16″
W. side, 28′ S. of Lyman, 6″ (*gate* 28′ 8″)	C.	140	16″
E. side, N. E. corner driveway for B. & A. R. R.	C.	136	16″
W. side, 18′ N. of Liberty, 6″ (*gate* 33′ 4″)	C.	138	16″
E. side, 50′ N. of Liberty, 6″	C.	136	16″
E. side, 158′ N. of Liberty, 6″ s. con.	C.	135	16″
E. side, opposite N. line of Sharon, 6″ s. con. (*gate* 5′ 5″)	C.	135	16″
E. side, opposite Congress	C.	135	16″
S. E. corner Franklin, 6″ s. con. (*gate* 15′ 6″)	C.	137	16″
E. side, opposite Greenwood, 6″ s. con.	C.	136	16″
E. side, opposite Tenth, 6″ s. con.	C.	136	16″
E. side, 5′ N. of Linden, 6″ s. con. (*gate* 23′ 6″)	C.	138	16″
E. side, opposite Patton, 6″ s. con.	C.	138	16″
E. side, opposite Bond	C.	139	16″
S. E. corner Carew	C.	141	16″
W. side, 8′ S. of S. line of Jefferson avenue	C.	140	12″
W. side, 8′ S. of Cumberland, 6″ 3-way (*gate* 13′ 3″)	C.	138	12″
W. side, opposite Springfield, 6″ 3-way (*gate* 7′ 3″)	C.	137	12″
CHICOPEE ROAD.			
E. side, 8′ S. of Carew street	C.	82	6″
E. side, 380′ W. of Liberty street, 6″ 3-way (*gate* 5′)	Co.	79	6″
CHILSON STREET.			
E. side, 180′ S. of Sumner avenue, 6″ 3-way (*gate* 4′ 2″)	Co.	90	6″

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	Make.	Pressure.	Main Pipe.
Church Street.			
S. E. corner North Main	C.	144	6″
S. side, 8′ E. of No. 27, 6″ s. con. (*gate* 3′)	C.	144	6″
S. side, front of No. 55, 6″ s. con. (*gate* 2′ 10″)	C.	144	6″
Churchill Street.			
E. side, 2′ S. of Garfield, 6″ (*gate* 3′ 5″)	Co.	93	6″
N. E. corner Sumner avenue	C.	94	6″
Clantoy Street.			
E. side, 650′ S. of Phœnix, 38′ S. of No. 61, 6″ s. con.	C.	86	6″
Claremont Street.			
N. side, near Crown, 6″ (*gate* 4′)	Co.	90	6″
Clarendon Street.			
S. E. corner St. James avenue	C.	83	6″
N. side, 590′ E. of St. James avenue	C.	83	6″
Clark Street.			
N. side, 3′ E. of Spruce, 6″ s. con.	C.	90	6″
N. side, 300′ E. of Spruce, 5″ s. con.	C.	90	6″
Clayton Street.			
N. side, on W. line of Nos. 38-40, 6″ s. con. (*gate* 4′ 3″)	Co.	147	6″
Cleveland Street.			
N. W. corner Liberty, 6″ s. con.	C.	85	6″
N. side, 9′ E. of Armory, 6″ s. con.	C.	88	6″
Clifford Street.			
W. side, 213′ N. of Bay	C.	83	4″
Cliftwood Street.			
E. side, 4′ S. of Sumner avenue, 6″ s. con.	C.	92	6″
Clinton Street.			
N. W. corner Main, 6″ (*gate* 6′ 3″)	Co.	143	6″
S. side, 5′ E. of No. 39	C.	143	6″

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	Make.	Pressure.	Main Pipe.
Clyde Street.			
N. W. corner Plainfield, 6″ s. con.	C.	147	6″
N. side, on W. line of No. 84.	C.	147	6″
Coleman Street.			
E. side, 320′ S. of Boston road, 14′ N. of No. 37, 6″ s. con.	C.	80	6″
College Street.			
E. side, 2′ N. of Wilbraham road.	C.	83	8″
E. side, 400′ S. of Shattuck.	C.	84	6″
E. side, 5′ S. of Shattuck.	C.	84	6″
Collins Street.			
N. side, 7′ W. of Logan.	C.	87	6″
Colonial Avenue.			
E. side, 6′ N. of Wilbraham road, 6″ s. con.	C.	83	6″
Colton Street.			
S. W. corner Wilbraham road.	C.	83	6″
Columbia Terrace.			
W. side, on S. line of Nos. 22-24, 6″ s. con.	C.	116	6″
Commonwealth Avenue.			
N. E. corner Walden street, 6″ 3-way (*gate* 6′ 10″)	Co.	92	8″
E. side, 67′ S. of Hollywood st., front of Nos. 77-79, 6″ s. con.	C.	91	6″
E. side, 231′ S. of Washington st., 15′ S. of No. 173, 6″ s. con.	C.	91	6″
Congress Street.			
N. E. corner Main, 6″ (*gate* 6′ 1″)	Co.	143	6″
N. side, 5′ E. of No. 34.	C.	145	6″
N. side, front of No. 100.	C.	145	6″
Continental Street.			
E. side, 435′ S. of Sumner avenue, front of No. 43, 6″ s. con. (*gate* 4′ 8″)	C.	94	6″

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	Make.	Pressure.	Main Pipe.
CONVERSE STREET.			
E. side, 81′ S. of N. line of Vermont, opposite No. 42, 6″ s. con. (*gate* 3′ 2″)	Co.	91	6″
CORNELL STREET.			
S. side, 9′ E. of Harvard	C.	85	6″
S. side, 10′ E. of Wellesley	C.	84	6″
S. side, 6′ E. of Princeton	C.	84	6″
CORTLAND STREET.			
W. side, 210′ N. of State, 8′ N. of No. 12	C.	83	6″
COURT STREET.			
S. E. corner Water, 8″ 4-way (*gate* 12′ 8″)	Co.	144	12″
S. side, midway Court square and Water, 6″ (*gate* 13′ 6″)	Co.	144	6″
S. side, N. W. corner of Court square, 8″ 4-way (*gate* 44′ 4″)	Co.	144	8″
S. side, N. E. corner of Court square, 8″ 4-way (*gate* 49′)	Co.	144	8″
N. side, N. W. corner of Main, 6″ 3-way (*gate* 2′ 4″)	Co.	144	6″
CREST STREET			
N. side, 350′ W. of Lakeside ave., 6″ (*gate* 4′ 6″)	Co.	83	6″
CRESTWOOD STREET.			
N. side, 450′ W. of Springfield, 6″ (*gate* 1′ 8″)	Co.	85	6″
CROSS STREET.			
N. side, 324′ E. of Willow, 6″ (*gate* 4′ 4″)	Co.	144	10″
CROWN STREET.			
N. side, 200′ E. of White, 6″ (*gate* 3′ 9″)	Co.	90	6″
CRYSTAL AVENUE.			
W. side, 7′ S. of Dickinson street, 6″ (*gate* 5′)	Co.	92	6″
CUMBERLAND STREET			
N. W. corner North, 6″ (*gate* 4′ 5″)	Co.	144	8″

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	Make.	Pressure.	Main Pipe.
CYPRESS COURT.			
W. side, 350′ N. of Cypress street	C.	142	4″
CYPRESS STREET.			
N. W. corner Main, 6″ 3-way (*gate* 6′ 1″)	Co.	143	6″
S. W. corner Main	C.	143	8″
N. W. corner Cypress court	C.	143	8″
N. E. corner Gray's avenue (*gate* 24′ 2″)	C.	142	6″
N. E. corner Boylston, 8″ 4-way (*gate* 22′ 8″)	C.	143	36″
N. E. corner Fulton, 8″ 4-way (*gate* 21′ 1″)	C.	143	36″
DARTMOUTH STREET.			
N. side, 5′ E. of St. James avenue	C.	83	12″
N. side, 590′ E. of St. James ave., opposite No. 53	C.	83	12″
DARTMOUTH TERRACE.			
N. side, 465′ W. of St. James avenue	C.	84	6″
DAWES STREET.			
W. side, 440′ N. of angle of Dawes, 22′ S. of No. 60	C.	83	6″
DAYTONA STREET.			
E. side, 5′ N. of Belmont avenue, 6″ s. con. (*gate* 4′ 6″)	C.	91	8″
E. side, 282′ S. of Sumner avenue, 6″ s. con. (*gate* 4′ 4″)	C.	91	8″
DEMOND AVENUE.			
N. side, opposite No. 43	C.	147	6″
DENVER STREET.			
*E. side, at No. 49, 6″ (*gate* 5′)	Co.	80	6″
E. side, 860′ S. of Boston road, front of No. 91	C.	80	6″
DEXTER STREET.			
N. E. corner George, 6″ s. con., r. g. (*gate* 4′ 9″)	C.	94	6″
N. side, 27′ E. of Dorne, 8′ W. of No. 38, 6″ s. con., r. g. (*gate* 5′ 4″)	C.	105	6″
N. side, 8′ W. of Knox, 6″ s. con. (*gate* 4′ 3″)	C.	106	6″

*Set since December 1.

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	Make.	Pressure.	Main Pipe.
DICKINSON STREET.			
W. side, 385′ N. of Bellevue avenue, 6″ s. con., r. g. (*gate* 4′ 6″)	C.	112	8″
W. side, 16′ S. of Alderman, 6″ s. con	C.	92	6″
E. side, 185′ S. of Sumner avenue, 6″ s. con	C.	91	6″
DONALD STREET.			
N. E. corner Birnie avenue, 6″ s. con. (*gate* 3′ 4″)	C.	148	6″
N. W. corner North Main, 6″ s. con., r. g. (*gate* 4′ 2″)	C.	146	6″
DORCHESTER STREET.			
N. E. corner Monmouth	C.	83	6″
DORNE STREET.			
E. side, 208′ N. of Smith, 6″ (*gate* 3′ 2″)	Co.	107	6″
DOUGLAS STREET.			
N. W. corner North Main (*gate* 6′)	C.	146	6″
DOVER STREET.			
N. side, 250′ W. of Chestnut, 6″ s. con	C.	142	6″
DRESDEN STREET.			
E. side, 375′ N. of Wilbraham road, front of No. 37, 6″ s. con	C.	83	6″
DWIGHT STREET.			
W. side, 8′ N. of State	C.	143	6″
S. W. corner East Court	C.	144	6″
E. side, at East Court, 6″ (*gate* 3′ 5″)	Co.	144	10″
S. W. corner New, 6″ (*gate* 6′ 8″)	Co.	144	6″
N. E. corner Harrison avenue (*gate* 10′ 7″)	P.	144	10″
E. side, 152′ N. of Harrison avenue, 6″ s. con. (*gate* 6′ 4″)	C.	144	10″
S. W. corner Hillman (*gate* 10′ 2″ from W. line Dwight, 14′ 6″ from S. line Hillman)	C.	144	6″
N. W. corner Hillman (*gate* 5′ 7″)	C.	144	10″
S. W. corner Bridge, 6″ (*gate* 8′ 10″)	Co.	144	6″
*N. E. corner Taylor, 6″ (*gate* 3′ 8″)	Co.	144	10″
*S. E. corner Lyman, 6″ (*gate* 3′ 4″)	Co.	144	10″

*Set since December 1, replacing 4″ Perkins.

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	Make.	Pressure.	Main Pipe
DYMON STREET.			
N. side, 218′ E. of Walnut	C.	87	6″
EAGLE STREET.			
N. W. corner Chestnut, 5″ s. con	C.	138	6″
EASTERN AVENUE.			
S. W. corner Wilbraham road	C.	83	12″
S. W. corner Tyler street	C.	84	12″
E. side, front of No. 251, opposite Lebanon street	C.	86	12″
S. W. corner Marshall place, 6″ (*gate* 4′ 7″)	Co.	91	8″
N. W. corner Hickory street, 6″ 3-way (*gate* 5′)	C.	96	8″
EAST HOOKER STREET.			
N. E. corner North Main, 6″	Co.	144	6″
EDDYWOODS AVENUE.			
E. side, 250′ N. of Sumner, 6″ (*gate* 6′ 6″)	Co.	90	6″
S. E. corner Plumtree road, 6″ (*gate* 4′ 8″)	Co.	90	6″
EDGELAND STREET.			
N. side, 420′ W. of Fort Pleasant avenue	C.	112	6″
EDGEMONT STREET.			
E. side, 575′ N. of State, 6″ 3-way (*gate* 3′ 8″)	C.	72	6″
EDWARDS STREET.			
N. side, 335′ W. of Elliott, in front of No. 40	P.	128	4″
ELEANOR ROAD.			
N. side, 350′ W. from White st., 6″ (*gate* 4′ 5″)	Co.	90	6″
ELIZABETH STREET.			
E. side, 5′ S. of Berkshire avenue, 6″ s. con	C.	79	6″
ELLIOTT STREET.			
E. side, 356′ N. of State, front of No. 35, 6″ s. con., r. g. (*gate* 5′)	C.	127	6″
W. side, 292′ S. of Edwards	C.	127	6″
E. side, 98′ S. of Edwards, front of No. 71, 6″ s. con., r. g. (*gate* 5′ 8″)	C.	127	6″
E. side, 9′ S. of Salem, 6″ s. con	C.	128	6″

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	Make.	Pressure.	Main Pipe.
Elm Street.			
S. E. corner Court square, 8″ 4-way (*gate* 21′ 6″)	Co.	144	8″
S. W. corner Main, 6″ (*gate* 5′ 9″)	Co.	144	6″
S. W. corner Court square, 8″ 4-way (*gate* 8′ 5″)	Co.	144	8″
S. side, 18′ E. of Hall of Records	C.	144	6″
N. E. corner Water	C.	144	6″
N. side, 30′ W. of bridge abutment, 6″ s. con. (*gate* 7′)	C.	151	6″
Elmwood Street.			
N. side, 10′ E. of Pecousic avenue, 6″ 3-way (*gate* 1′ 6″)	C.	147	6″
N. side, 8′ W. of Barney & Berry skate shop, 6″ s. con., r. g. (*gate* 4′ 6″)	C.	147	6″
Emery Street.			
S. W. corner Main, 6″ 3-way (*gate* 3′ 8″)	Co.	142	6″
N. side, opposite Gray's avenue	C.	143	8″
N. E. corner Boylston	C.	143	8″
N. E. corner Fulton	C.	143	8″
Emily Street.			
E. side, 400′ N. of Switzer avenue, 6″ (*gate* 4′ 7″)	Co.	78	6″
Erie Street.			
S. side, 400′ W. of Chicopee road, 6″ 3-way (*gate* 4′ 6″)	Co.	81	6″
Essex Street.			
N. E. corner Main, 6″ 3-way (*gate* 2′ 2″)	C.	143	10″
N. side, front of No. 36, 6″ 3-way (*gate* 2′)	C.	145	10″
N. side, 12′ W. of No. 66, 6″ 3-way (*gate* 1′ 9″)	C.	145	10″
N. side, front of No. 94, 6″ 3-way (*gate* 2′)	C.	145	10″
N. side, front of No. 124, 6″ 3-way (*gate* 2′)	C.	144	10″
N. W. corner Chestnut, 6″ 3-way (*gate* 3′ 2″)	C.	137	10″
Euclid Avenue.			
N. side, front of No. 58, 620′ W. of Dickinson street	C.	92	6″
N. side, 24′ W. of Dickinson street	C.	92	6″
N. side, 306′ E. of Dickinson street, 6″ 3-way (*gate* 5′)	C.	94	6″

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	Make.	Pressure.	Main Pipe.
Everett Street.			
S. side, 8′ E. of Chestnut	C.	139	6″
S. side, 550′ E. of Chestnut, 19′ W. of No. 57	C.	135	6″
S. W. corner Cass	C.	130	6″
Fairfield Street.			
N. side, front of No. 50	C.	93	6″
Fairview Street.			
N. W. corner Groveland, 6″ s. con.	C.	90	6″
Farnsworth Street.			
S. side, front of No. 51	C.	83	6″
S. side, front of No. 133	C.	82	6″
Federal Street.			
W. side, 207′ S. of N. line of Lincoln	M.	89	16″
Ferry Street.			
S. E. corner Main	C.	143	6″
S. side, front of No. 89, 6″ (*gate* 2′ 10″)	Co.	144	6″
S. side, front of No. 155, 6″ s. con., r. g. (*gate* 2′ 6″)	C.	144	8″
S. side, front of No. 225, 6″ s. con., r. g. (*gate* 2′ 6″)	C.	143	8″
Firglade Avenue.			
E. side, 13′ N. of Spruceland, front of Nos. 47-49	C.	98	6″
E. side, 392′ S. of Pineywoods, opposite Nos. 138-140, 6″ 3-way (*gate* 5′ 6″)	C.	101	6″
Fisk Avenue.			
S. W. corner Wason, 6″ 4-way	C.	147	12″
S. W. corner Demond (*gate* 14′ 2″)	C.	147	12″
N. E. corner Holyoke Card & Paper Company's office (*gate* 4′ 2″) on Grace street main	C.	147	12″
W. side, 38′ S. of Worcester	C.	147	8″
W. side, 6′ N. of Talcott, 6″ s. con. (*gate* 4′ 10″)	C.	147	8″
W. side, 10′ N. of Abbe, 6″ s. con., r. g. (*gate* 4′ 6″)	C.	147	8″
N. W. corner Rowland, 6″ (*gate* 4′ 8″)	Co.	147	8″

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	Make.	Pressure.	Main Pipe.
Five Mile Pond.			
W. of pump house, 12′ N. of S. line of pump house (*gate* 10′ W. of W. line of pump house)	C.	80	16″
Florence Street.			
N. E. corner Pine, 8″ 4-way (*gate* 3′)	Co.	90	10″
N. side, front of No. 34, 6″ (*gate* 3′ 4″)	Co.	90	10″
N. side, opposite Beech, 6″ (*gate* 3′)	Co.	90	10″
N. side, 138′ E. of Spruce, 6″ (*gate* 4′ 4″)	Co.	89	10″
N. side, 8′ W. of Hancock, 6″ (*gate* 2′ 7″)	Co.	90	10″
N. W. corner Walnut, 6″ 3-way (*gate* 1′ 6″)	C.	89	8″
Florida Street.			
S. W. corner St. James avenue, 6″ (*gate* 3′ 4″)	Co.	85	6″
S. W. corner Worthington	M.	86	6″
Forest Street.			
E. side, front of No. 51, 300′ N. of Forest Park ave.	C.	93	6″
Forest Park Avenue.			
N. side, 14′ E. of Fort Pleasant, 6″ (*gate* 6′ 4″)	Co.	116	24″
N. side, 16′ E. of Woodside terrace, 6″ (*gate* 6′ 10″)	Co.	109	24″
N. side, 389′ E. of Woodside terrace, 6″ (*gate* 6′ 10″)	Co.	103	24″
N. E. corner Sumner	C.	95	6″
W. side, 2′ N. of Pineywoods	C.	98	6″
Fort Street.			
S. side, front of No. 37	C.	144	6″
S. E. corner Water	C.	144	6″
Fort Pleasant Avenue.			
E. side, at Belmont, 19′ S. of concrete steps, 6″ (*gate* 4′)	Co.	129	8″
Foster Street.			
S. W. corner Central, 6″ s. con.	C.	91	6″
N. E. corner Greenacre square, 6″ (*gate* 2′ 7″)	Co.	97	6″

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	Make.	Pressure.	Main Pipe.
Franklin Street.			
S. side, 12′ E. of Main, 6″ s. con. (*gate* 3′ 2″)	Co.	143	8″
S. side, front of No. 37	C.	145	8″
S. side, front of No. 73	C.	145	8″
S. side, front of No. 113	C.	145	8″
S. W. corner Chestnut	C.	137	8″
N. side, 9′ E. of No. 170, 6″ s. con	C.	135	6″
N. side, 482′ W. of E. line of Cass, 6″	C.	133	6″
Fremont Street.			
S. W. corner Main, 1-way	C.	146	6″
S. side, 350′ E. of Water, 6″ (*gate* 3′)	Co.	146	6″
Fulton Street.			
E. side, 16′ S. of No. 19, 6″ 3-way (*gate* 2′ 2″)	C.	143	36″
E. side, front of No. 39, 6″ 3-way (*gate* 1′ 9″)	C.	143	36″
E. side, 2′ N. of Emery, 8″ 4-way (*gate* 1′ 9″)	C.	143	36″
E. side, 6′ N. of Clinton, 8″ 4-way (*gate* 1′ 9″)	C.	144	36″
E. side, 5′ N. of Vine, 6″ 3-way (*gate* 2′)	C.	143	36″
E. side, 8′ N. of Holyoke, 6″ 3-way (*gate* 1′ 8″)	C.	143	36″
E. side, 8′ N. of Auburn, 8″ 4-way (*gate* 6′ 11″)	C.	143	36″
E. side, 8′ N. of Sargeant, 8″ 4-way (*gate* 1′ 10″)	C.	142	36″
E. side, 13′ N. of Bradford, 6″ 3-way (*gate* 3′)	C.	142	36″
N. E. corner John, 6″ 3-way (*gate* 3′ 2″)	C.	142	36″
E. side, 13′ N. of Plymouth, 6″ 3-way (*gate* 3′)	C.	141	36″
E. side, front of No. 287, 6″ 3-way (*gate* 2′ 7″)	C.	141	36″
N. E. corner Plainfield, 6″ 3-way (*gate* 18′ 1″)	C.	140	36″
W. side, 282′ N. of Plainfield, 6″ 3-way (*gate* 3′ 6″)	C.	137	6″
Gardner Street.			
N. side, 138′ W. of Main, 6″ (*gate* 5′ 10″)	Co.	147	10″
N. side, 112′ E. of Gardner ave., 6″ (*gate* 7′ 9″)	Co.	147	10″
N. side, opposite Hanover, 8″ 4-way (*gate* 7′ 9″)	Co.	146	10″
Garfield Street.			
N. side, 36′ E. of Forest Park ave., 6″ (*gate* 6′ 6″)	Co.	93	24″
N. side, 25′ W. of Oakland, 6″ (*gate* 6′ 11″)	Co.	93	24″
Gold Street.			
N. side, 280′ E. of Armory	C.	88	6″

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	Make.	Pressure.	Main Pipe.
GOLDENROD STREET.			
E. side, 236′ S. of Bay, 6″ (*gate* 3′ 3″)	Co.	70	6″
GORDON STREET.			
N. side, 3′ W. of White, 6″ (*gate* 4′)	Co.	90	6″
N. side, 92′ E. of W. line of Pasadena, 6″ (*gate* 4′ 8″)	Co.	92	6″
GOVERNOR STREET.			
N. side, 376′ E. of Armory, 58′ E. of No. 37, 6″ 3-way (*gate* 5′)	Co.	85	6″
N. side, 14′ E. of No. 90, 6″ (*gate* 4′)	Co.	85	6″
GRACE STREET.			
S. W. corner North Main, 6″ (*gate* 2′ 6″)	Co.	145	12″
GRAND STREET.			
N. side, 100′ W. of Wareham, opposite No. 89, 6″ s. con.	C.	90	6″
GRANT STREET.			
N. side, 11′ E. of Armory	C.	87	4″
GRANVILLE STREET.			
N. side, 5′ W. of Logan,	C.	85	6″
GRAY'S AVENUE.			
W. side, 2′ N. of No. 30	C.	143	6″
GREENACRE SQUARE.			
W. side, rear No. 45 Foster street	C.	96	6″
GREENE STREET.			
N. W. corner Nelson	C.	87	6″
N. side, 50′ W. of Monson	C.	87	6″
N. side, 3′ W. of Eastern avenue	C.	87	6″
GREEN LANE.			
N. side, midway lane, 6″ s. con., r. g.	C.	87	6″
GREENLEAF STREET.			
E. side, 2′ S. of Garfield, 6″ (*gate* 3′ 4″)	Co.	93	6″
N. E. corner Sumner avenue	C.	94	6″

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	Make.	Pressure.	Main Pipe.
GREENWICH STREET.			
N. side, 2′ W. of No. 32, 6″ s. con.	C.	145	6″
GREENWOOD STREET.			
N. E. corner Main, 6″ 3-way (*gate* 6′ 2″)	Co.	145	6″
N. side, 10′ E. of No. 42	C.	146	6″
N. side, 5′ E. of No. 76	C.	145	6″
N. side, 6′ E. of No. 118	C.	145	6″
GRENADA TERRACE.			
W. side, 7′ N. of Dickinson street, 6″ s. con.	C.	92	6″
Center of terrace, 46′ E. of Sorrento street	C.	91	6″
GROSVENOR STREET.			
N. side, 3′ E. of North	C.	144	6″
N. side, 370′ W. of Chestnut	C.	143	6″
N. W. corner Chestnut	C.	142	6″
GROVE STREET.			
N. E. corner North Main	C.	144	6″
GROVELAND STREET.			
N. E. corner Dickinson, 6″ s. con.	C.	90	6″
GROVER STREET.			
N. side, 7′ W. of Liberty, 6″ s. con.	C.	84	6″
N. side, 700′ W. of Liberty, 9′ W. of No. 70, 6″	C.	86	6″
GUNN SQUARE.			
N. side, 6′ E. of Northampton avenue, 6″ 3-way (*gate* 4′ 4″)	C.	90	6″
HALL STREET.			
W. side, 7′ N. of Belmont avenue	C.	92	6″
W. side, 510′ N. of Belmont ave., front of No. 50	C.	92	6″
W. side, 4′ S. of Dickinson	C.	92	6″
HAMBURG STREET.			
N. W. corner Farnsworth (*gate* 2′ 8″)	C.	83	6″
HAMPDEN STREET.			
N. side, 132′ W. of Main, 6″ s. con., r. g. (*gate* 27′ 9″)	C.	144	8″

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	Make.	Pressure.	Main Pipe.
HANCOCK STREET.			
S. E. corner State, 8″ 4-way (*gate* 26′)	C.	85	30″
E. side, 2′ N. of Monroe, 6″ (*gate* 6′ 4″)	Co.	85	30″
E. side, 4′ N. of Union, 6″ (*gate* 6′ 10″)	Co.	85	30″
E. side, 2′ N. of Quincy, 6″ (*gate* 7′ 2″)	Co.	85	30″
E. side, 2′ S. of Tyler, 6″ (*gate* 7′ 2″)	Co.	86	30″
E. side, 4′ S. of Pendleton ave., 6″ (*gate* 7′ 2″)	Co.	86	30″
E. side, 8′ S. of King, 6″ (*gate* 6′ 8″)	Co.	86	30″
E. side, 4′ S. of Lebanon, 6″ (*gate* 6′ 10″)	Co.	87	24″
E. side, 6′ S. of Greene, 6″ (*gate* 7′)	Co.	87	24″
E. side, 11′ N. of Alden, 6″ (*gate* 6′ 6″)	Co.	88	24″
N. W. corner Clark	C.	92	6″
W. side, 11′ S. of No. 490	C.	116	6″
W. side, 18′ N. of Mill, opposite No. 521, 6″ 3-way (*gate* 3′ 10″)	C.	118	6″
HANOVER STREET.			
E. side, 11′ N. of Broad	C.	147	8″
HARRIET STREET.			
N. side, 129′ E. of No. Main, 6″ 3-way (*gate* 3′ 5″)	Co.	145	6″
N. E. corner North, 6″ s. con	C.	144	6″
HARRISON AVENUE.			
N. E. corner Main street, 6″ s. con., r. g. (*gate* 6′ 7″)	C.	144	12″
S. W. corner Market street	C.	144	6″
N. side, opposite Market street, 6″ (*gate* 9′)	Co.	144	12″
N. side, front of No. 44, 8″ 4-way (*gate* 9′ 6″)	Co.	144	12″
*S. side, 116′ W. of Dwight st., 6″ (*gate* 18′ 7″)	Co.	144	6″
S. side, 2′ W. of Dwight street	C.	143	6″
N. W. corner Dwight street, 6″ 4-way (*gate* 9′ 4″)	C.	143	12″
HARVARD STREET.			
S. E. corner St. James avenue	C.	83	6″
S. side, 129′ W. of Amherst, front of No. 48	C.	83	6″
HARVEY STREET.			
N. E. corner Boston road	C.	77	4″
E. side, 28′ N. of No. 58	C.	77	4″

*Set since December 1, replacing 6″ Perkins.

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	Make.	Pressure.	Main Pipe.
HAWLEY STREET.			
S. E. corner State, 6″ (*gate* 4′ 2″)	Co.	84	8″
HAWTHORNE STREET.			
N. W. corner Hancock	C.	90	4″
N. side, 260′ E. of Spruce	C.	90	4″
HAYDEN AVENUE.			
E. side, 430′ N. of State street, 7′ N. of No. 41	P.	84	4″
HEBRON STREET.			
N. side, 4′ W. of Chestnut	C.	142	6″
N. side, 11′ E. of No. 34	C.	144	6″
HICKORY STREET.			
N. E. corner Walnut, 8″ 4-way (*gate* 11′)	Co.	103	8″
N. side, 405′ W. of Eastern avenue, 13 E. of No. 110, 6″ s. con.	C.	101	4″
N. side, 179′ W. of Eastern avenue, 4′ E. of No. 130, 6″ s. con. (*gate* 4′ 5″)	C.	98	4″
W. side, 273′ N. of railroad tracks	C.	90	4″
W. side, 336′ S. of N. line of Alden, 6″ s. con., r. g. (*gate* 5′)	C.	88	8″
N. E. corner Woodbine avenue	C.	87	4″
HIGH STREET.			
S. side, 360′ W. of School, 6″ s. con.	C.	122	6″
N. side, 4′ E. of Myrtle, 6″ (*gate* 3′ 6″)	Co.	112	8″
S. E. corner Ingraham ave., 6″ s. con. (*gate* 26′ 8″)	C.	94	8″
N. side, front of No. 168, 6″ (*gate* 4′ 8″)	Co.	90	8″
N. side, 27′ W. of Woodworth ave., 6″ (*gate* 3′ 4″)	Co.	88	8″
N. side, 8′ W. of Walnut, 6″ (*gate* 3′)	Co.	87	8″
HIGHLAND STREET.			
N. side, 19′ W. of No. 23, 6″ (*gate* 3′ 2″)	Co.	85	6″
HIGHLAND TERRACE.			
E. side, 20′ N. of Jennette ave., 6″ (*gate* 4′)	Co.	79	10″
HILLMAN STREET.			
N. E. corner Main, 6″ s. con., r. g. (*gate* 14′ 2″)	C.	144	8″
N. W. corner Barnes, 8″ 4-way (*gate* 4′ 9″)	Co.	144	8″

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	Make.	Pressure.	Main Pipe.
Hobson Street.			
E. side, 8′ S. of Berkshire ave., 6″ s. con. (*gate* 4′ 8″)	C.	78	8″
N. E. corner Bagley, 6″ (*gate* 6′ 4″)	Co.	78	6″
Hollywood Street.			
N. side, 4′ E. of Dickinson, 6″ s. con.	C.	90	6″
N. side, 244′ E. of Commonwealth avenue, 6″ (*gate* 4′)	Co.	90	8″
Holyoke Street.			
N. W. corner Main	C.	142	6″
N. side, front of No. 44	C.	141	6″
Home Street.			
N. side, 103′ W. of No. 20, 6″ s. con. (*gate* 5′ 3″)	Co.	83	6″
Hooker Street.			
N. side, 281′ E. of Birnie ave., 6″ s. con. (*private*)	C.	148	6″
N. side, 14′ E. of Birnie ave., 6″ s. con. (*private*)	C.	148	6″
N. side, 160′ W. of Birnie ave., 6″ s. con. (*private*)	C.	148	6″
Howard Street.			
S. W. corner Main, 6″ (*gate* 13′ 8″)	Co.	145	6″
S. side, front of No. 43	C.	145	6″
S. side, 310′ W. of Water, 8″ 4-way (*gate* 5′)	Co.	146	8″
S. side, 425′ W. of Water, 6″ 3-way (*gate* 2′ 6″)	C.	146	8″
Hubbard Avenue.			
S. E. corner Main street	C.	146	6″
Hunt Terrace.			
E. side, 190′ N. of Allen street	C.	91	4″
Hunter Place.			
W. side, 285′ N. of State street, 6″ s. con.	C.	83	6″
W. side, 610′ N. of State street, front of No. 66, 6″ (*gate* 4′ 4″)	Co.	83	6″

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	Make.	Pressure.	Main Pipe.
HUNTINGTON STREET.			
N. side, 13′ W. of North Main, 6″ 3-way (*gate* 5′ 9″)	Co.	144	6″
N. side, opposite Nos. 31-33, 6″ (*gate* 3′ 3″)	Co.	144	6″
N. E. corner Birnie avenue, 6″ s. con.	C.	147	6″
HYDE AVENUE.			
S. E. corner Plainfield street	C.	147	6″
S. W. corner Fisk	C.	147	6″
INGERSOLL GROVE.			
E. side, 237′ N. of Worthington street, 6″ (*gate* 4′ 8″)	Co.	86	30″
E. side, 7′ N. of McKnight Glen, 6″ (*gate* 4′ 10″)	Co.	87	6″
N. side, 300′ N. of McKnight Glen, front of No. 79	C.	87	6″
IRVINGTON STREET.			
E. side, 350′ S. of Sumner avenue, 6″ s. con.	C.	90	6″
E. side, at park, 6″ (*gate* 6′ 11″)	Co.	90	6″
JAMES STREET.			
*N. W. corner Walnut, 6″ (*gate* 3′ 4″)	Co.	87	6″
E. side, 13′ S. of Nos. 44-46	C.	88	4″
JASPER STREET.			
†E. side, opposite No. 58, 6″ (*gate* 7′ 10″)	Co.	79	6″
JEFFERSON AVENUE.			
S. side, 11′ E. of No. 33, 6″ s. con. (*gate* 8′ S.)	C.	144	12″
N. side, front of No. 32, 6″ 3-way (*gate* 10′ 2″ N.)	C.	144	36″
S. W. corner North street	C.	144	12″
N. W. corner North street, 6″ 3-way (*gate* 5′ 10″)	C.	144	6″
N. side, opposite No. 111, 146′ W. of Chestnut street, 6″ 3-way (*gate* 10′ 1″ N.)	C.	142	36″
JENNETTE AVENUE.			
N. side, on E. line office building of Millett Brass Company, 6″ (*gate* 3′ 6″)	Co.	79	12″
N. side, 258′ E. of preceding hydrant, 6″ (*gate* 3′ 6″)	Co.	79	12″

*Set since December 1, replacing 6″ Matthews.
†Set since December 1.

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JOHN STREET.	Make.	Pressure.	Main Pipe.
S. W. corner Plainfield	C.	141	4″
S. side, front of No. 31, 6″ s. con. (*gate* 2′ 3″)	C.	141	6″
JOHNSON STREET.			
N. side, 4′ W. of No. 10, 6″	C.	92	6″
N. side, 7′ W. of Ranney	P.	92	6″
KEITH STREET.			
W. side, 18′ N. of Belmont avenue	C.	92	6″
W. side, 540′ N. of Belmont avenue, front of No. 53	C.	92	6″
W. side, 3′ S. of Dickinson	C.	92	6″
KENSINGTON AVENUE.			
N. side, 8′ E. of Oakland street, 6″ s. con	C.	91	6″
N. side, 8′ W. of Earl street, 6″ s. con	C.	91	6″
N. side, 2′ W. of Ranney street, 6″ (*gate* 4′ 6″)	Co.	91	6″
KENWOOD PARK.			
W. side, 6′ N. of Belmont avenue, 6″ (*gate* 2′ 9″)	Co.	92	6″
W. side, 400′ S. of Dickinson street, 6″ s. con	C.	92	6″
W. side, 10′ S. of Dickinson street, 6″ s. con	C.	92	6″
KENWOOD TERRACE.			
E. side, 194′ S. of Belmont ave., 6″(*gate* 4′ 6″)	Co.	92	6″
E. side, 4′ N. of Sumner ave., 6″ (*gate* 5′ 2″)	Co.	92	6″
KING STREET.			
N. side, 30′ E. of No. 42	C.	87	4″
N. side, 15′ W. of Nelson	C.	86	6″
N. side, 106′ E. of Prince, 6″ s. con. (*gate* 5′ 5″)	Co.	86	6″
N. side, 2′ W. of Eastern avenue	C.	86	6″
N. W. corner Logan	C.	85	6″
N. side, 5′ W. of Westford avenue, 6″ s. con	C.	88	6″
KNOX STREET.			
E. side, 12′ S. of No. 49, 6″ s. con., r. g. (*gate* 4′ 4″)	C.	109	6″
LADD STREET.			
N. side, 16′ W. of Logan	C.	87	6″

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	Make.	Pressure.	Main Pipe.
LAKESIDE AVENUE.			
E. side, 120′ S. of Crest street, 6″ (*gate* 5′ 2″)	Co.	83	6″
LANGDON STREET.			
N. side, 160′ W. of No. 58, 6″ (*gate* 5′ 4″)	Co.	83	6″
LEBANON STREET.			
N. side, 209′ W. of Hancock, 6″ (*gate* 3′ 6″)	Co.	87	16″
N. side, 2′ W. of Nelson	C.	87	6″
N. side, 7′ E. of W. line of Merrick avenue	C.	87	6″
LEDYARD STREET.			
N. side, 242′ W. of Armory, 6″ s. con. (*gate* 4′)	C.	98	6″
LENOX STREET.			
E. side, front of No. 43, 6″ s. con	C.	92	6″
LESTER STREET.			
E. side, 445′ N. of Sumner avenue, 6″ s. con. (*gate* 4′ 10″)	Co.	90	6″
LEYFRED TERRACE.			
E. side, 30′ N. of Belmont avenue, 6″ s. con	C.	112	6″
E. side, 516′ N. of Belmont avenue, front of Nos. 57-59, 6″ s. con	C.	110	6″
LEXINGTON AVENUE.			
N. side, 2′ W. of Massasoit street	C.	135	6″
LIBERTY STREET.			
S. E. corner Main, 6″ s. con	C.	144	6″
S. side, 28′ E. of driveway to depot	C.	145	6″
S. side, 97′ E. of driveway to depot	C.	145	6″
S. side, 43′ W. of North, 5″ s. con	C.	145	6″
S. side, 131′ E. of preceding	C.	144	6″
*S. side, 99′ W. of Chestnut, 6″ (*gate* 9′ 6″)	Co.	142	6″
S. E. corner Chestnut	C.	136	6″
S. E. corner Charles	C.	135	6″
N. side, 206′ E. of Charles	C.	135	8″

*Set since December 1, replacing 6″ Chapman.

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LIBERTY STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
S. side, 496′ E. of Charles, front of West Box Co., 6″ s. con. (*gate* 7′)	C.	135	8″
S. side, opposite Cass	C.	128	8″
S. side, opposite Webster	C.	124	8″
S. side, 12′ W. of Heywood	C.	119	8″
S. side, 85′ W. of Tracy avenue, 6″ s. con.	C.	109	8″
N. W. corner Genesee, 6″ s. con. (*gate* 33′ 8″)	C.	103	8″
E. side, 12′ N. of Ledyard, 6″ s. con. (*gate* 4′ 4″)	C.	96	8″
E. side, 275′ S. of Armory, 6″ s. con. (*gate* 5′ 8″)	C.	91	8″
N. W. corner Armory, 6″ (*gate* 3′ 5″)	Co.	90	8″
W. side, front of Nos. 640-642, 6″ 3-way (*gate* 3′ 5″)	C.	87	8″
W. side, front of Nos. 682-684, 6″ 3-way (*gate* 3′)	C.	86	8″
W. side, 13′ N. of Carew 6″ s. con., r. g. (*gate* 4′)	C.	84	8″
W. side, 13′ N. of Woodmont, 6″ s. con., r. g. (*gate* 3′ 8″)	C.	83	8″
W. side, 31′ N. of Home, 6″ s. con. (*gate* 4′ 9″)	C.	83	8″
W. side, 150′ N. of Wentworth avenue, 6″ 3-way (*gate* 5′)	C.	83	8″
W. side, 4′ N. of No. 1015, 6″ 3-way (*gate* 5′)	Co.	83	8″
LILLIAN STREET.			
N. side, front of No. 18, 212′ W. of Orleans	C.	86	4″
LINCOLN STREET.			
N. E. corner Federal	P.	87	6″
N. side, 5′ W. of Magazine, 5″ s. con.	C.	89	6″
LINDEN STREET.			
S. side, 6′ E. of Chestnut (*gate* 3′ 2″)	C.	137	6″
S. side, 37′ W. of No. 61 (*gate* 4′ 4″)	C.	135	6″
S. side, 8′ W. of Cass (*gate* 4′)	C.	130	6″
LITCHFIELD STREET.			
E. side, 6′ S. of Belmont avenue	C.	92	6″
E. side, 2′ N. of Garfield, 6″ (*gate* 4′ 9″)	C.	92	6″
LITTLE RIVER SUPPLY MAIN.			
In yard of U. S. Whip Co., Westfield, 6″ (private)	Co.		42″

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	Make.	Pressure.	Main Pipe.
Locust Street.			
E. side, 4′ N. of Warriner ave., 6″ (*gate* 4′ 10″)	Co.	138	12″
Lombard Street.			
N. side, front of No. 26	C.	147	4″
Longfellow Terrace.			
N. side, 273′ W. from White street, 6″ s. con., (*gate* 5′)	Co.	90	6″
Longhill Street.			
E. side, front of No. 49	C.	109	8″
S. E. corner Warner place	C.	98	8″
E. side, 6′ N. of Spruceland avenue	C.	97	8″
E. side, 9′ N. of Cherryvale avenue, 6″ s. con	C.	98	8″
E. side, 139′ N. of Washington boulevard, 10′ S. of No. 321, 6″ s. con., r. g. (*gate* 6′ 3″)	C.	102	6″
S. side, 62′ E. of Barney's driveway, 6″ s. con., r. g.	C.	120	6″
Loring Street.			
N. W. corner Main	C.	147	8″
N. side, 2′ E. of No. 36	C.	147	8″
N. side, 2′ E. of Water, 6″ s. con., r. g. (*gate* 6′)	C.	147	8″
Los Angeles Avenue.			
S. side, 6′ E. of Hamburg street	C.	81	6″
S. side, front of Nos. 45-47	C.	83	6″
Lowell Street.			
N. side, 12′ W. of Plainfield	C.	148	6″
N. side, front of No. 56	C.	149	6″
N. side, front of No. 132, 6″ s. con. (*gate* 2′ 6″)	C.	149	6″
Lyman Street.			
N. E. corner Main, 6″ s. con., r. g. (*gate* 9′ 6″)	C.	144	6″
N. side, 292′ E. of Main	P.	144	6″
N. side, N. W. corner of driveway to station	C.	144	6″
N. side, 224′ W. of Dwight, 6″ 3-way (*gate* 9′ 6″)	Co.	144	8″
N. side, opposite Dwight	C.	143	8″

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LYMAN STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
N. side, 14′ W. of Chestnut, 6″ s. con., r. g. (*gate* 7′)	C.	141	8″
N. side, 366′ W. of Spring, r. g. (*gate* 6′ 2″)	C.	136	6″
N. side, 6′ W. of Spring	C.	134	6″
LYNDALE STREET.			
E. side, 350′ S. of Sumner avenue, 6″ (*gate* 5′)	C.	91	8″
E. side, 340′ N. of Belmont avenue, 6″ s. con., r. g. (*gate* 4′ 8″)	C.	91	8″
MADISON AVENUE.			
E. side, at angle, 6″ 3-way (*gate* 3′ 3″)	Co.	90	6″
MAGAZINE STREET.			
W. side, 15′ N. of Grant	C.	88	4″
MAGNOLIA TERRACE.			
Center of terrace, 4′ S. of Sumner avenue	C.	96	6″
E. side, 285′ N. of Pineywoods avenue	C.	100	6″
E. side, 12′ N. of Washington boulevard, 6″ (*gate* 8′ 10″)	Co.	103	6″
MAIN STREET.			
S. E. corner Carew (*gate* 17′ 6″ N. W.)	C.	144	16″
S. E. corner Patton (*gate* 15′ 9″)	C.	144	16″
N. E. corner Franklin, 8″ 4-way (*gate* 4′)	Co.	143	16″
W. side, 30′ S. of Congress, 8″ 4-way (*gate* 6′ W. of E. curb)	Co.	143	16″
S. E. corner Sharon (*gate* 10′ 11″ N. W.)	C.	143	16″
E. side, front of No. 217 (*gate* 4′ S.)	C.	144	16″
E. side, 30′ S. of arch, opposite Railroad	C.	145	16″
E. side, front of No. 263, 6″ s. con	Co.	144	16″
E. side, opposite Fort	C.	144	16″
W. side, 3′ S. of Hampden, 6″ 3-way (*gate* 9′ 2″)	Co.	144	12″
W. side, front of No. 360, 9′ N. of Hillman, 6″ s. con. (*gate* 10′)	C.	144	12″
W. side, 16′ N. of Vernon, 6″ s. con. (*gate* 11′)	C.	144	12″

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MAIN STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
E. side, opposite Vernon, 85′ N. of Harrison avenue, 8″ 4-way (*gate* 4′ 8″)	Co.	144	16″
S. E. corner Harrison avenue (*gate* 30′ 10″ N. W.)	C.	144	16″
E. side, opposite Pynchon, 6″ r. g. (*gate* 3′)	C.	144	16″
E. side, front of No. 415, 6″ s. con. (*gate* 7′)	Co.	144	16″
E. side, 3′ S. of East Court, 6″ s. con., r. g. (*gate* 18′ 2″)	C.	144	16″
E. side, 107′ N. of Sanford, 8″ 4-way (*gate* 7′ 5″)	Co.	144	16″
S. E. corner Stockbridge	C.	144	16″
E. side, 16′ S. of Crossett avenue	C.	144	16″
E. side, 2′ S. of Cross	C.	144	16″
N. W. corner Howard (*gate* 18′ W. of E. curb in Main, 16′ 6″ S. of N. line of Howard)	P.	145	12″
E. side, 2′ N. of Park	C.	146	12″
N. W. corner Wilcox (*gate* 12′ from E. curb in Main, 16′ 8″ S. of N. line of Wilcox)	C.	146	12″
E. side, 2′ N. of Winthrop	C.	147	12″
N. W. corner Margaret (*gate* 13′ 9″ from E. curb in Main, 25′ 6″ S. of N. line of Margaret)	C.	147	12″
S. E. corner Adams, 6″	C.	146	12″
E. side, opposite Lombard, 6″	C.	147	12″
E. side, opposite Arlington court, 6″	C.	147	12″
E. side, 14′ S. of Gardner, 6″	C.	147	12″
E. side, 10′ N. of Marble, 6″ s. con. (*gate* 2′ 5″)	C.	147	12″
E. side, 8′ N. of Rutledge avenue, 6″ s. con.	C.	147	12″
E. side, 5′ N. of Acushnet avenue, 6″ s. con. (*gate* 1′ 10″)	C.	147	12″
E. side, 30′ W. of Locust, 8″ 4-way (*gate* 33′ 6″)	Co.	147	10″
W. side, 352′ N. of S. line of Mill, 6″ (*gate* 7′ 8″)	Co.	146	10″
W. side, 90′ N. of S. line of Mill, 6″ (*gate* 7′ 2″)	Co.	146	10″
E. side, 148′ S. of Mill, 6″ (*gate* 4′ 4″)	Co.	146	12″
E. side, 60′ S. of Bemis & Call's office building, 6″ (*gate* 9′ 6″)	Co.	147	12″
S. side, 123′ E. of W. line of Longhill, 6″ (*gate* 8′ 3″)	Co.	147	12″
E. side of Pecousic avenue, at Main, 6″ 3-way (*gate* 13′ 4″)	C.	147	8″
E. side, 70′ N. of South End bridge, 6″ s. con. (*gate* 3′ 8″)	C.	145	6″

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	Make.	Pressure.	Main Pipe.
MALDEN STREET.			
E. side, 6′ S. of Allen, 6″ (*gate* 5′)	Co.	93	6″
E. side, 400′ S. of Allen, 8′ N. of No. 45, 6″ (*gate* 5′)	Co.	90	6″
E. side, 7′ N. of Grand, 6″ s. con.	C.	90	6″
E. side, 200′ N. of Orange, 6″ (*gate* 6′ 10″)	Co.	90	6″
MANHATTAN STREET.			
N. side, 12′ W. of Eastern avenue, 6″ 3-way (*gate* 4′ 2″)	C.	90	6″
N. side, 530′ W. of Eastern avenue, opposite No. 49	C.	89	6″
N. side, 4′ E. of Walnut	C.	88	6″
MANSFIELD STREET.			
N. side, at Nos. 42-44, 6″ (*gate* 4′ 6″)	Co.	90	6″
MAPLE COURT.			
S. side, 360′ E. of Maple street, 6″ s. con.	C.	92	6″
MAPLE STREET.			
W. side, 67′ S. of Temple, 6″ s. con. (*gate* 6′ 1″)	C.	129	6″
W. side, opposite High	C.	126	6″
W. side, 8′ S. of Park, 6″ s. con.	C.	128	6″
W. side, 267′ S. of N. line of Union, 6″ s. con.	C.	125	6″
S. E. corner Mulberry	C.	122	8″
W. side, 170′ S. of Mulberry, 6″ s. con.	C.	122	6″
N. E. corner Avon place, 6″ (*gate* 3′ 7″)	Co.	123	8″
E. side, 400′ S. of Central, 6″ (*gate* 8′ 4″)	Co.	103	10″
E. side, 761′ S. of Central, 6″ s. con, r. g. (*gate* 8′ 7″)	C.	93	10″
E. side, 15′ N. of Maple court, 6″ (*gate* 8′ 7″)	Co.	92	10″
E. side, 30′ N. of Crescent Hill avenue, 6″ (*gate* 8′ 6″)	Co.	91	10″
E. side, front of No. 385, 6″ s. con., r. g. (*gate* 5′ 9″)	C.	98	10″
MAPLEDELL STREET.			
E. side, 3′ N. of State, 6″ s. con.	C.	84	6″
E. side, 500′ N. of State, 6′ N. of No. 49, 6″ (*gate* 6′ 6″)	Co.	84	6″
S. E. corner Burr, 5″ s. con.	C.	86	6″

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	Make.	Pressure.	Main Pipe.
MAPLEWOOD TERRACE.			
N. E. corner Fort Pleasant avenue, 6″ s. con.	C.	103	6″
N. W. corner Randolph street, 5″ s. con.	C.	95	6″
N. W. corner Forest Park avenue, 5″ s. con.	C.	94	6″
MARBLE STREET.			
N. side, 4′ E. of Main, 6″ 3-way (*gate* 7′ 8″)	Co.	147	8″
N. side, 500′ E. of Main, front of No. 58, 6″ s. con.	C.	146	8″
N. side, front of No. 108, 6″ s. con.	C.	143	8″
MARENGO PARK.			
N. side, 10′ W. of Dickinson street, 6″ s. con. (*gate* 6′ 8″)	C.	92	6″
N. side, 3′ E. of La Verne street, 6″ s. con.	C.	91	6″
MARGARET STREET.			
S. W. corner Main, 6″ (*gate* 6′ 10″)	Co.	146	6″
S. side, 410′ E. of Water, 8′ E. of No. 41, 6″ (*gate* 5′ 7″)	Co.	146	6″
N. side, 500′ W. of Water, 6″ s. con. (*gate* 22′ 5″)	Co.	144	6″
MARGERIE STREET.			
*N. E. corner State, 6″ (*gate* 4′ 6″)	Co.	74	24″
MARION STREET.			
W. side, 6′ N. of Pease	C.	85	6″
E. side, 8′ N. of No. 157	C.	83	6″
MARKET STREET.			
W. side, 4′ S. of Sanford	C.	144	6″
W. side, 3′ N. of East Court, 6″ 3-way (*gate* 8′ 3″)	C.	144	6″
MASON PLACE.			
W. side, 400′ S. of Dickinson street, 6″ s. con.	C.	92	6″
MASON STREET.			
E. side, 312′ N. of State	C.	84	6″

*Set since December 1.

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Massachusetts Avenue.	Make.	Pressure.	Main Pipe.
Center of terrace, 36′ S. of Wilbraham road, 6″ s. con., r. g. (*gate* 4′ 6″)	C.	83	6″
Center of terrace, 400′ S. of Wilbraham road, front of No. 43, 6″ s. con., r. g. (*gate* 3′ 4″)	C.	84	8″
Center of terrace, front of No. 80, 6″ (*gate* 3′ 4″)	Co.	84	8″
Center of terrace, S. of No. 112, 6″ (*gate* 3′ 2″)	Co.	85	8″
Massasoit Place.			
N. side, 236′ E. of Massasoit street, 6″ 3-way (*gate* 3′ 9″)	C.	129	6″
Massasoit Street.			
W. side, 15′ S. of No. 48, 6″ s. con. (*gate* 3′ 6″)	C.	133	6″
W. side, 333′ S. of Lexington ave., 6″ s. con. (*gate* 1′ 8″)	C.	133	6″
Mattoon Street.			
S. side, 298′ W. of Elliott, 6″ s. con. (*gate* 5′ 10″)	Co.	130	6″
Maynard Street.			
W. side, 190′ N. of State	C.	83	6″
S. W. corner Shattuck, 6″ (*gate* 9′ 9″)	Co.	83	6″
E. side, 500′ S. of Acorn, 31′ S. of No. 160, 6″ 3-way (*gate* 5′)	C.	83	6″
McKnight Street.			
N. side, 8′ W. of Girard avenue	C.	83	6″
Mechanic Street.			
N. side, 75′ E. of railroad tracks	C.	145	6″
Medford Street.			
N. side, opposite Nos. 31-33, 6″ (*gate* 3′ 2″)	Co.	147	6″
N. E. corner Birnie ave., 6″ s. con., r. g. (*gate* 4′)	C.	147	6″
Melrose Street.			
N. W. corner Eastern avenue, 5″ s. con	C.	92	6″
N. side, 285′ W. from Eastern avenue, 5″ s. con	C.	94	6″

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	Make.	Pressure.	Main Pipe.
MERRICK AVENUE.			
E. side, 216′ N. of Lebanon street, 6″ (*gate* 5′)	Co.	86	6″
MERWIN STREET.			
N. W. corner Chestnut, 5″ s. con.	C.	137	6″
MIDDLESEX STREET.			
E. side, 4′ S. of Wilbraham road	C.	83	6″
E. side, 370′ N. of Marlborough, 4′ S. of No. 35, 6″ (*gate* 5′)	Co.	83	6″
E. side, 200′ S. of preceding, 6″ (*gate* 4′)	Co.	83	6″
MILL STREET.			
S. side, 31′ W. of fire engine house, 6″ (*gate* 5′)	Co.	142	12″
N. side, 7′ E. of Locust, 8″ 4-way (*gate* 4′ 9″)	Co.	135	16″
N. side, 13′ E. of No. 76, 6″ (*gate* 4′)	Co.	126	16″
N. side, front of No. 120, 6″ (*gate* 4′)	Co.	118	16″
S. side, 9′ E. of No. 185, 6″ s. con., r. g. (*gate* 4′ 4″)	C.	110	8″
S. side, opposite Maple, 6″ s. con., r. g. (*gate* 6′ 8″)	C.	112	16″
S. side, 130′ E. of Knox, 6″ s. con., r. g. (*gate* 7′ 3″)	C.	117	16″
N. side, 350′ E. of Chester, 6″ (*gate* 6′ 3″)	Co.	117	6″
N. side, at No. 442, 6″ (*gate* 6′ 3″)	Co.	117	6″
MILLER STREET.			
N. side, 600′ E. of Armory, 6″ (*gate* 4′ 4″)	Co.	88	6″
MONROE STREET.			
N. side, opposite No. 45, 6″ (*gate* 8′)	Co.	83	6″
N. W. corner Hawley, 6″ (*gate* 5′ 6″)	Co.	83	6″
N. W. corner Eastern avenue	C.	83	6″
N. side, 8′ W. of Colton	C.	83	6″
MONTMORENCI STREET.			
S. side, 14′ E. of Chestnut, 6″ 3-way (*gate* 20′ 8″)	Co.	140	36″
N. side, 4′ E. of Nos. 32-34, 5″ r. g. (*gate* 4′ 5″)	C.	137	36″
N. side, 2′ W. of Massasoit	C.	135	6″
MONTROSE STREET.			
E. side, 350′ N. of State, 2′ S. of No. 49, 6″ s. con.	C.	84	6″

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	Make.	Pressure.	Main Pipe.
Mooreland Avenue.			
E. side, front of No. 47, 6″ s. con., r. g. (*gate* 5′)	C.	87	6″
E. side, opposite No. 90, 6″ s. con. (*gate* 4′)	C.	89	6″
*N. E. corner Van Horn, 6″ (*gate* 3′ 2″)	Co.	89	6″
Morgan Street.			
S. E. corner North Main, 6″ (*gate* 5′ 7″)	Co.	144	6″
S. side, front of No. 33, 6″ (*gate* 6′ 10″)	Co.	145	6″
Morris Street.			
N. side, 5′ E. of Main, 6″ 3-way (*gate* 10′ 4″)	C.	146	6″
N. side, 7′ E. of No. 40	C.	144	6″
E. side, 220′ N. of Central	C.	140	8″
Mountainview Street.			
W. side, 4′ S. of Westernview, 6″ s. con	C.	94	6″
Mulberry Street.			
N. side, 216′ W. of School, front of No. 44, 6″ s. con.	C.	122	6″
N. E. corner Ridgewood place, 6″ (*gate* 3′ 8″)	Co.	107	8″
N. side, 86′ W. of Mulberry street angle, opposite No. 125, 6″ (*gate* 3′ 4″)	Co.	98	8″
E. side, opposite Ridgewood terrace, 6″ (*gate* 10′ 3″)	Co.	91	8″
Murray Hill Avenue.			
E. side, 250′ N. of Liberty st., 6″ s. con. (*gate* 4′)	C.	118	6″
E. side, 2′ S. of Franklin st., 6″ s. con. (*gate* 4′ 3″)	C.	114	6″
Myrtle Street.			
E. side, 257′ S. of State, 2′ N. of No. 31	C.	115	4″
New Street.			
N. E. corner East Court, 6″ (*gate* 3′ 2″)	Co.	144	6″
Newbury Street.			
E. side, 350′ S. of Carew, 5′ S. of No. 24, 6″ s. con., r. g. (*gate* 5′ 2″)	C.	83	6″
E. side, front of Nos. 63-65, 6″ s. con. (*gate* 4′)	C.	83	6″
E. side, 36′ 6″ N. of Sherman avenue, 6″ (*gate* 6′ 8″)	Co.	83	6″

*Set since December 1.

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	Make.	Pressure.	Main Pipe.
Newland Street.			
N. W. corner Plainfield, 6″ s. con.	C.	148	6″
N. side, 750′ W. of Plainfield, 6″ s. con.	C.	148	6″
Noel Street.			
N. side, 17′ W. of Shamrock avenue	C.	96	6″
N. side, 3′ W. of No. 94	C.	101	6″
E. side, 300′ S. of Mill, 6″ (*gate* 4′)	Co.	115	6″
Norfolk Street.			
E. side, 3′ S. of Wilbraham road	C.	83	6″
E. side, 12′ S. of No. 39, 6″ s. con., r. g. (*gate* 2′ 9″)	C.	83	6″
N. E. corner Marlborough, 6″ s. con., r. g. (*gate* 2′ 3″)	C.	83	6″
E. side, opposite No. 130, 6″ (*gate* 3′)	Co.	85	6″
North Street.			
N. E. corner Patton, 6″(*gate* 2′ 8″)	Co.	144	10″
E. side, 9′ N. of Carew, 6″ 3-way (*gate* 3′ 10″)	C.	144	10″
E. side, 2′ N. of Grosvenor, 6″ 3-way (*gate* 3′ 3″)	C.	144	10″
E. side, 7′ N. of Ringgold, 6″ 3-way (*gate* 3′ 6″)	C.	144	10″
E. side, 4′ N. of Hebron, 6″ 3-way (*gate* 3′ 4″)	C.	143	10″
E. side, 12′ N. of Allendale, 6″ 3-way (*gate* 3′ 6″)	C.	143	10″
E. side, 12′ N. of Brookline avenue, 6″ 3-way (*gate* 3′ 2″)	C.	143	10″
E. side, 11′ N. of Bancroft, 6″ 3-way (*gate* 3′ 6″)	C.	144	10″
S. E. corner Jefferson avenue, 6″ 3-way (*gate* 4′ 3″)	C.	144	10″
Northampton Avenue.			
E. side, 2′ S. of Wilbraham road	C.	83	6″
E. side, 141′ N. of Southampton	C.	84	6″
E. side, 30′ N. of Beverly street	C.	85	6″
E. side, 30′ S. of S. road of Gunn square, 6″ s. con.	C.	89	6″
E. side, 10′ N. of King street, 6″ s. con. (*gate* 3′ 6″)	C.	86	6″
North Main Street.			
N. W. corner Bradford, 6″ s. con., r. g. (*gate* 60′ 7″ E.)	C.	142	16″
N. E. corner Morgan (*gate* 17′ 6″ S. W.)	C.	144	16″
S. E. corner Osgood (*gate* 17′ 3″)	C.	144	16″

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North Main Street—(*Continued*).	Make.	Pressure.	Main Pipe.
N. E. corner Bancroft (*gate* 15′ 10″)	C.	142	16″
S. E. corner Calhoun 6″ (*gate* 17′ 4″ N. W.)	Co.	145	16″
E. side, midway Grace and Wason avenue, 6″ s. con., r. g. (*gate* 7′ 3″)	C.	145	12″
E. side, 370′ N. of Wason avenue, 6″ s. con., r. g. (*gate* 9′)	C.	146	12″
E. side, 960′ N. of Wason avenue, 8″ 4-way (*gate* 6′ 5″)	C.	146	12″
Norwood Street.			
S. side, 101′ E. of Pecousic avenue, 6″ (*gate* 18′ 5″)	Co.	147	6″
N. side, 161′ W. of Pecousic ave., 6″ 3-way (*gate* 4′)	C.	147	6″
N. side, N. E. corner Hanover, 6″ 3-way (*gate* 8′ 4″)	C.	147	6″
Oak Street.			
W. side, 2′ S. of Charter avenue	C.	87	6″
N. E. corner Quincy	P.	87	6″
Oak Grove Avenue.			
E. side, 7′ N. of State street, 6″ s. con	C.	83	6″
E. side, 350′ N. of State street, 10′ S. of No. 41, 6″ 3-way (*gate* 5′ 4″)	C.	83	6″
E. side, 5′ S. of Shattuck st., 6″ 3-way (*gate* 6′ 2″)	C.	85	6″
N. E. corner Acorn street, 6″ s. con. (*gate* 5′ 8″)	C.	83	6″
Oakland Street.			
N. E. corner Sumner avenue, 6″ (*gate* 4′ 9″)	Co.	92	6″
E. side, 231′ S. of Garfield, 6″ (*gate* 4′ 9″)	Co.	92	6″
W. side, 8′ N. of Belmont ave., 8″ 4-way (*gate* 7′)	C.	92	24″
W. side, opposite No. 125, 393′ S. of Dickinson, 6″ (*gate* 6′ 8″)	Co.	92	24″
W. side, 22′ S. of Dickinson, 6″ (*gate* 7′ 2″)	Co.	92	24″
W. side, 9′ N. of Dickinson, 6″ (*gate* 6′ 8″)	Co.	92	24″
W. side, 105′ N. of Bloomfield, 6″ (*gate* 6′ 8″)	Co.	92	24″
W. side, 85′ N. of Kensington ave., 6″ (*gate* 6′ 6″)	Co.	91	24″
W. side, 2′ N. of Orange, 6″ (*gate* 4′ 4″)	Co.	91	24″
S. W. corner Noel, 6″ (*gate* 6′ 3″)	Co.	91	24″
W. side, 10′ N. of No. 347, 6″ (*gate* 7′ 4″)	Co.	92	24″
W. side, 33′ S. of No. 387, 6″ (*gate* 6′ 7″)	Co.	92	24″
W. side, 62′ S. of Allen, 6″ (*gate* 5′ 6″)	Co.	98	24″

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	Make.	Pressure.	Main Pipe.
Olive Street.			
N. W. corner Logan	C.	86	6″
Orange Street.			
S. side, 64′ W. of Revere, 6″ s. con.	C.	90	6″
S. side, 30′ W. of Ranney	C.	90	6″
N. side, 200′ W. of Palm, 6″ s. con.	C.	91	6″
N. side, 14′ W. of Allen, 6″ (*gate* 4′ 9″)	Co.	90	6″
Orchard Street.			
N. side, 7′ W. of Plainfield	C.	148	6″
N. side, 968′ W. of Plainfield, opposite No. 109	C.	148	6″
N. side, front of No. 142, 6″ s. con. (*gate* 8′ 3″ S.)	C.	148	6″
Orlando Street.			
E. side, 318′ S. of Sumner ave., 6″ s. con. (*gate* 4′)	C.	91	6″
Orleans Street.			
S. E. corner State, 6″ (*gate* 5′ 6″)	Co.	86	8″
N. E. corner Union	P.	86	4″
E. side, 4′ N. of Pendleton avenue	C.	87	6″
Ormond Street.			
E. side, 6′ N. of Belmont avenue, 6″ s. con.	C.	92	6″
Osgood Street.			
N. E. corner North Main, 6″ 3-way (*gate* 3′ 9″)	C.	144	8″
N. side, front of No. 26, 6″ 3-way (*gate* 3′ 2″)	C.	145	8″
N. side, 6′ E. of No. 48, 6″ (*gate* 3′)	Co.	145	8″
N. side, 8′ W. of North, 6″ 3-way (*gate* 3′)	C.	143	8″
Oxford Street.			
W. side, 2′ S. of Forest Park avenue, 6″ (*gate* 3′ 2″)	Co.	94	6″
W. side, 265′ S. of Forest Park avenue, 6″ (*gate* 3′ 2″)	Co.	95	6″
Palm Street.			
E. side, 200′ S. of Orange, 6″ (*gate* 2′ 6″)	Co.	91	6″

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	Make.	Pressure.	Main Pipe.
PALMER AVENUE.			
N. side, front of No. 30, 250′ E. of Locust street, 6″ s. con. (*gate* 8′ 8″)	C.	140	6″
PARK STREET.			
S. side, 3′ W. of Willow, 6″ s. con., r. g. (*gate* 2′)	C.	145	8″
N. side, 331′ W. of Maple, 6″ (*gate* 3′ 6″)	P.	142	6″
PARKSIDE AVENUE.			
E. side, 4′ N. of Carew st., 6″ s. con., r. g. (*gate* 4′)	C.	87	6″
E. side, 450′ N. of Carew street, 6″ s. con., r. g. (*gate* 3′ 8″)	C.	86	6″
E. side, 1,050′ N. of Carew street, 6″ s. con., r. g. (*gate* 3′ 10″)	C.	86	6″
PARKWOOD STREET.			
E. side, 251′ S. of Sumner avenue	C.	92	6″
PATTON STREET.			
N. E. corner Main	C.	144	4″
N. side, 6′ E. of No. 54	C.	145	4″
N. W. corner Chestnut	C.	138	6″
PEARL STREET.			
N. side, 4′ W. of Salem, 6″ s. con	C.	132	6″
N. side, 28′ E. of Byers, 6″ s. con., r. g. (*gate* 5′ 9″)	C.	118	10″
N. side, 440′ E. of Byers, 18′ E. of No. 156, 6″ s. con., r. g. (*gate* 4′ 4″)	C.	114	10″
N. side, 16′ W. of No. 196, 6″ s. con., r. g. (*gate* 4′ 5″)	C.	110	10″
N. side, 10′ W. of No. 234, 6″ s. con., r. g. (*gate* 4′ 5″)	C.	106	10″
N. side, 414′ W. of Federal, 6″ s. con., r. g. (*gate* 2′ 10″)	C.	103	10″
N. side, 5′ W. of Federal, 6″ s. con., r. g. (*gate* 4′)	C.	89	10″
PEARL STREET PLACE.			
E. side, 254′ N. of Pearl street, 6″ (*gate* 2′ 6″)	Co.	129	6″
PECOUSIC AVENUE.			
W. side, 392′ S. of York st., 8″ 4-way (*gate* 55′)	C.	147	36″

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PENDLETON AVENUE.	Make.	Pressure.	Main Pipe.
N. W. corner Eastern	C.	84	6″
N. side, 10′ E. of No. 204, 430′ W. of Eastern	C.	85	6″
N. side, front of No. 164, 430′ E. of Hancock street	C.	85	6″
PHOENIX STREET.			
N. side, 10′ E. of Liberty, 6″ (*gate* 5′ 9″)	Co.	85	6″
PINE STREET.			
E. side, front of No. 55	C.	88	6″
E. side, front of No. 109 (*gate* 5′ 7″)	C.	88	6″
W. side, 12′ S. of Central, 6″ 3-way, r. g. (*gate* 4′)	C.	90	16″
W. side, 8′ N. of Maple court, 6″ 3-way (*gate* 2′ 10″)	C.	91	16″
W. side, 33′ E. of Maple, 8″ 4-way (*gate* 3′)	Co.	93	16″
W. side, 19′ N. of Crescent hill, 6″ (*gate* 5′)	Co.	96	16″
W. side, opposite No. 355, 6″ (*gate* 3′ 6″)	Co.	103	16″
W. side, opposite Mill st., 8″ 4-way (*gate* 3′ 10″)	Co.	110	16″
PINEYWOODS AVENUE.			
W. side, 10′ N. of Washington boulevard, 6″ s. con.	C.	102	6″
N. E. corner Florentine gardens	C.	100	6″
N. side, 4′ E. of Firglade, 6″ s. con.	C.	99	6″
PLAINFIELD STREET.			
S. side, 150′ W. of Plymouth	C.	141	6″
N. side, 36′ E. of Fulton	C.	137	6″
E. side, front of No. 407	C.	146	8″
N. E. corner Demond avenue	C.	147	8″
N. E. corner Hyde avenue (*gate* 15′ 2″ S. W.)	C.	147	8″
S. E. corner Wason avenue	C.	145	8″
PLEASANT STREET.			
N. E. corner State, 6″ (*gate* 4′ 2″)	Co.	86	6″
S. E. corner Bay	C.	86	4″
PLUMTREE ROAD.			
N. side, at Tilton's house, 6″ (*gate* 6′ 9″)	Co.	84	6″
PLYMOUTH STREET.			
N. side, 8′ W. of Nos. 20-22, 6″ s. con. (*gate* 2′ 4″)	C.	141	6″

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	Make.	Pressure.	Main Pipe.
POMONA STREET.			
E. side, opposite Grenada terrace, 6″ s. con.	C.	90	6″
PORTLAND STREET.			
N. W. corner North Main, 6″ s. con. (*gate* 3′ 10″)	C.	144	6″
N. side, opposite Nos. 35-37, 6″ (*gate* 3′ 3″)	Co.	144	6″
PRATT STREET.			
N. side, 4′ E. of Chestnut, 6″ s. con. (*gate* 3′ 10″)	C.	137	6″
N. side, 294′ E. of Chestnut, 6″ s. con. (*gate* 4′ 2″)	C.	137	6″
N. side, 2′ W. of Massasoit, 6″ s. con. (*gate* 4′ 2″)	C.	135	6″
PRINCETON STREET.			
S. side, 2′ W. of Yale	C.	83	6″
S. side, 125′ W. of Amherst	C.	83	6″
S. E. corner St. James avenue	C.	83	6″
PROSPECT STREET.			
S. side, 12′ W. of Massasoit	C.	132	4″
S. side, 404′ W. of Carew, 6″ (gate 11′ 4″)	Co.	120	36″
S. side, 7′ W. of Carew, 6″ s. con. (*gate* 11′ 4″)	C.	112	36″
PYNCHON STREET.			
N. side, 2′ W. of Main, 6″ s. con., r. g. (*gate* 7′ 10″)	C.	144	8″
S. side, 200′ W. of Main, 6″ (*gate* 22′ 5″)	Co.	144	8″
N. side, 8′ W. of I. O. O. F. building, 6″ s. con., r. g. (*gate* 4′ 2″)	C.	144	12″
QUEEN STREET.			
N. side, 323′ W. of Hancock, 7′ E. of No. 42	C.	86	6″
QUINCY STREET.			
N. W. corner Orleans	C.	87	6″
N. E. corner Stebbins	C.	86	6″
N. side, 18′ E. of No. 182	C.	85	6″
N. side, 4′ E. of No. 230	C.	85	6″
N. side, 5′ W. of Eastern avenue	C.	83	6″
N. side, 2′ W. of Colton	C.	84	6″
RAILROAD STREET.			
S. side, 20′ W. of Main, 6″ (*gate* 3′ 5″)	Co.	144	6″
S. side, 12′ E. of Dwight Loomis Co., 6″ s. con.	C.	143	6″

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	Make.	Pressure.	Main Pipe.
RANDALL AVENUE.			
W. side, 330′ N. of Allen street, 5′ N. of No. 32	C.	96	4″
RANDOLPH STREET.			
S. E. corner Forest Park avenue, 6″ (*gate* 5′ 2″)	Co.	94	6″
REED STREET.			
E. side, 6′ S. of State, 6″ (*gate* 5′ 6″)	Co.	83	6″
E. side, front of No. 31, 6″ (*gate* 6″)	Co.	83	6″
N. E. corner Wilbraham road	C.	83	6″
REVERE STREET.			
E. side, 3′ N. of Grand, 6″ s. con	C.	90	6″
RIDGEWOOD TERRACE.			
S. side, 236′ W. of Mulberry street, 6″ 3-way	Co.	94	6″
RIMMON AVENUE.			
S. side, 455′ W. of Bedford road (*gate* 4′)	C.	85	6″
S. side, 12′ E. of Bedford road, 6″ s. con. (*gate* 8′)	C.	85	6″
S. W. corner Gladwood (*gate* 9′ 6″)	C.	85	6″
RINGGOLD STREET.			
S. W. corner Chestnut	C.	144	6″
S. side, 330′ W. of Chestnut	C.	144	6″
RIPLEY PLACE.			
E. side, 205′ S. of St. James ave., 6″ (*gate* 4′ 6″)	P.	86	6″
RIVERVIEW STREET.			
W. side, 30′ N. of Riverview terrace, 6″ (*gate* 7′)	Co.	100	6″
RIVERVIEW TERRACE.			
Center of terrace, 7′ E. of Fort Pleasant avenue, 6″ s. con	C.	107	6″
ROCHELLE STREET.			
E. side, 350′ S. of Wilbraham road, 6″ (*gate* 4′)	Co.	83	6″
E. side, 750′ S. of Wilbraham road, 6″ (*gate* 4′)	Co.	83	6″

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	Make.	Pressure.	Main Pipe.
ROSELAND STREET.			
N. side, front of No. 38	C.	147	6″
N. side, 275′ W. of Nos. 54-56	C.	147	6″
ROWLAND STREET.			
N. side, 18′ W. of No. 96, 6″ s. con. (*gate* 4′ 5″)	Co.	147	6″.
N. E. corner Plainfield, 6″ (*gate* 4′ 4″)	Co.	147	8″
RUTLEDGE AVENUE.			
N. side, 312′ E. of Main street, front of No. 32	P.	148	6″
SACHEM STREET.			
W. side, 250′ N. of Dickinson, 6″ (*gate* 3′ 9″)	Co.	98	6″
SALEM STREET.			
N. side, opposite Elliott	C.	128	6″
SANFORD STREET.			
N. E. corner Main, 8″ 4-way	Co.	144	6″
N. side, 6′ E. of Market, 6″ s. con	C.	144	6″
N. side, opposite No. 31, 169′ E. of Market	C.	144	6″
N. side, 35′ W. of Dwight	P.	144	6″
SARGEANT STREET.			
N. W. corner Main	C.	143	6″
S. side, 17′ W. of No. 37, 6″ s. con	C.	142	6″
SCHOOL STREET.			
E. side, 6′ S. of State, 8″ 4-way (*gate* 3′ 10″)	Co.	118	12″
E. side, 13′ N. of High, 6″ (*gate* 6′ 4″)	Co.	118	12″
E. side, 10′ N. of Union, 6″ (*gate* 8′)	Co.	118	12″
E. side, 241′ N. of Mulberry, 6″ (*gate* 7′ 2″)	Co.	117	12″
E. side, 4′ N. of Mulberry, 6″ (*gate* 7′)	Co.	117	12″
SCOTT STREET.			
W. side, opposite Pomona, 6″ s. con., r. g. (*gate* 3′ 9″)	C.	89	6″
N. W. corner White, 6″ s. con., r. g. (*gate* 4′ 3″)	C.	89	6″
SEARLE PLACE.			
N. side, 196′ E. of Walnut st., 6″ (*gate* 3′ 10″)	Co.	89	6″

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	Make.	Pressure.	Main Pipe.
SECOND STREET.			
W. side, near R. R. station, 6″ (*gate* 5′ 6″)	Co.	94	6″
SEVENTH STREET.			
Center of park on Main, opposite Seventh, 8″ 4-way (*gate* 5′ 2″)	C.	143	12″
S. side, opposite No. 26, 6″ 3-way (*gate* 2′ 9″)	C.	142	12″
S. side, 4′ W. of No. 53, 6″ 3-way (*gate* 3′)	C.	142	12″
S. E. corner Fulton, 6″ 3-way (*gate* 3′)	C.	142	12″
SHARON STREET.			
N. E. corner Main, 6″ 3-way (*gate* 2′ 6″)	C.	143	10″
N. side, front of No. 62, 6″ 3-way (*gate* 2′ 6″)	C.	144	10″
N. side, 24′ E. of No. 136, 6″ 3-way (*gate* 2′ 6″)	C.	144	10″
N. side, 10′ E. of block N. W. corner North, 6″ 3-way (*gate* 2′ 10″)	Co.	143	10″
N. side, front of No. 260, 6″ 3-way (*gate* 2′ 6″)	C.	144	10″
SHATTUCK STREET.			
S. W. corner Willard avenue, 6″ (*gate* 3′ 10″)	Co.	83	6″
SHEFFORD STREET.			
W. side, 234′ N. of Springfield, 10′ N. of No. 28, 6″ s. con., r. g. (*gate* 4′ 2″)	C.	94	8″
SHELDON STREET.			
S. W. corner North Main, 6″ 3-way (*gate* 1′ 4″)	C.	145	36″
S. side, 14′ W. of No. 31, 6″ 3-way (*gate* 1′ 4″)	C.	145	36″
S. side, 9′ E. of Birnie ave., 6″ 3-way (*gate* 1′ 4″)	C.	146	36″
S. side, in Chase Lumber Yard, 130′ W. of Birnie avenue, 8″ 4-way (*gate* 5′ 2″)	C.	146	36″
SHERMAN STREET.			
S. E. corner Bay	C.	83	4″
S. E. corner McKnight	C.	83	4″
N. E. corner State	P.	83	4″
SHILLINGFORD STREET.			
N. side, 500′ E. of Eastern avenue, 6″ (*gate* 4′ 6″)	Co.	89	6″

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	Make.	Pressure.	Main Pipe.
SMITH STREET.			
N. side, 6′ W. of Knox, 6″ s. con., r. g. (*gate* 3′ 9″)	C.	112	6″
SORRENTO STREET.			
E. side, 7′ N. of Sumner avenue, 6″ s. con.	C.	91	6″
SPENCER AVENUE.			
E. side, at No. 35, 6″ (*gate* 3′ 8″)	Co.	90	6″
SPRING STREET.			
N. W. corner State, 6″ s. con. (*gate* 3′ 4″)	C.	120	6″
E. side, 70′ S. of Frost, 6″ s. con., r. g. (*gate* 2′ 6″)	C.	122	6″
E. side, front of No. 63, 351′ S. of Salem, 6″ s. con., r. g. (*gate* 2′ 6″)	C.	123	6″
E. side, opposite Salem, 6″ 3-way	P.	125	6″
N. E. corner Pearl, 6″ s. con., r. g. (*gate* 2′ 6″)	C.	126	6″
N. E. corner Summer	C.	131	6″
SPRINGFIELD STREET.			
In Springfield Hospital grounds, 6″ s. con., r. g. (*private*)	C.	124	
In Springfield Hospital grounds, 6″ s. con., r. g. (*private*)	C.	124	
In Springfield Hospital grounds (*private*)	C.	124	
S. side, 20′ W. of Atwater terrace, 6″ s. con. (*gate* 19′ 8″)	C.	124	8″
S. side, 43′ E. of W. line of Shefford, 6″ s. con.	C.	93	8″
S. W. corner Armory	P.	87	8″
SPRUCE STREET.			
E. side, 6′ N. of Hawthorne, 6″ (*gate* 2′ 6″)	Co.	89	8″
SPRUCELAND AVENUE.			
S. side, 12′ W. of Magnolia terrace	C.	98	6″
S. side, 22′ W. of Cherryvale	P.	98	6″
STAFFORD STREET.			
N. side, 370′ W. of Armory, 6″ (*gate* 4′ 8″)	Co.	89	6″

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State Street.	Make.	Pressure.	Main Pipe.
S. side, N. E. corner United Electric Light Co.'s dynamo building	C.	145	4″
N. side, 23′ W. of Institution for Savings, 6″ s. con. (*gate* 5′ 4″)	C.	144	8″
N. side, 4′ W. of Court House	C.	144	8″
S. side, 13′ W. of Court House place, 6″ 3-way (*gate* 8′ 6″)	C.	144	8″
N. side, 14′ W. of Main, 8″ 4-way (*gate* 7′ 6″)	Co.	144	12″
N. side, on E. line of Main, 8″ 4-way (*gate* 9′)	Co.	144	16″
N. W. corner Market	C.	144	16″
S. side, 4′ W. of Willow, 6″ s. con	C.	144	8″
N. side, 11′ E. of Dwight (*gate* 6′)	C.	142	16″
S. side, 275′ E. of Maple, 6″ 3-way, r. g. (*gate* 10′ 10″)	C.	133	6″
N. side, 359′ W. of Elliott (*gate* 4′ 8″)	P.	130	16″
S. side, 480′ E. of Maple, 7′ E. of State Street Grammar School, 8″ 4-way (*gate* 10′ 10″)	C.	129	8″
N. side, 182′ W. of Elliott, 6″ s. con. (*gate* 17′ 4″)	C.	127	16″
N. W. corner Elliott (*gate* 22′ 10″)	M.	124	16″
N. side, 375′ E. of Byers, 8″ 4-way (*gate* 7′ 2″)	C.	103	20″
N. side, 850′ W. of Federal, 6″ 3-way (*gate* 7′ 6″)	C.	94	20″
N. side, 550′ W. of Federal, 8″ 4-way (*gate* 7′ 5″)	C.	91	20″
N. side, 266′ W. of Federal, 6″ 3-way (*gate* 7′ 5″)	C.	89	20″
N. side, 26′ W. of Federal, 8″ 4-way (*gate* 7′ 2″)	C.	87	20″
N. side, opposite No. 515, 6″ (*gate* 16′ 9″ N.)	Co.	87	20″
N. side, opposite 539, 6″ (*gate* 18′ 9″ N.)	Co.	87	20″
N. E. corner St. James avenue, 6″ (*gate* 5′)	Co.	87	20″
N. side, opposite Orleans, 6″ (*gate* 5′ 8″)	Co.	87	20″
N. side, opposite Terrence, 6″ (*gate* 3′ 2″)	Co.	86	20″
N. E. corner Westminster, 6″ (*gate* 7′ 8″)	Co.	86	24″
N. side, 74′ W. of N. Y., N. H. & H. R. R. tracks, 6″ s. con. (*gate* 6′)	C.	83	24″
N. side, 12′ E. of College street	C.	83	24″
N. side, 119′ W. of Cortland (*gate* 23′ 9″)	C.	83	24″
N. E. corner Almshouse driveway, 6″ s. con. (*gate* 1′ 9″)	C.	80	24″
N. E. corner Edgemont (*gate* 13′)	C.	73	24″
In Almshouse property (*private*)	C.	72	

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STATE STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
In Almshouse property, 6″ s. con. (*private*)	C.	72	
In Almshouse property, 6″ s. con. (*private*)	C.	72	
In Almshouse property (*private*)	C.	72	
STEBBINS STREET.			
S. E. corner State, 6″ (*gate* 6′ 2″)	Co.	86	8″
STERLING STREET.			
S. side, front of No. 43	C.	87	6″
STERNS TERRACE.			
E. side, 375′ N. of Central st., 6″ 3-way (*gate* 3′ 8″)	Co.	103	8″
ST. JAMES AVENUE.			
W. side, opposite Dorchester street	C.	81	6″
STOCKBRIDGE STREET.			
S. W. corner Willow, 6″ s. con	C.	144	6″
N. E. corner Willow, 6″ (*gate* 19′ 10″)	C.	144	6″
S. side, 132′ E. of Willow, 6″ s. con. (*gate* 1′ 10″)	C.	144	6″
S. side, 288′ E. of Willow	P.	143	6″
S. W. corner Maple	P.	134	6″
SUFFOLK STREET.			
E. side, 10′ S. of No. 129, 5″ s. con	C.	83	6″
SULLIVAN STREET.			
N. E. corner Armory, 6″ s. con	C.	87	6″
SUMMER STREET.			
N. side, 20′ W. of Autumn, 6″ s. con., r. g. (*gate* 6′)	C.	126	8″
S. side, front of No. 103, 6″ s. con., r. g. (*gate* 4′ 2″)	C.	127	8″
S. side, 380′ W. of Kibbe ave., 6″ s. con., r. g. (*gate* 4′ 2″)	C.	124	8″
S. side, 10′ E. of Kibbe avenue, 6″ (*gate* 5′ 2″)	C.	121	8″
S. W. corner Federal, 6″ s. con., r. g. (*gate* 5′ 8″)	C.	107	8″
SUMNER AVENUE.			
N. side, 19′ E. of Longhill street	C.	96	6″
N. W. corner Fort Pleasant	C.	97	6″

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SUMNER AVENUE—(*Continued*).	Make.	Pressure.	Main Pipe.
S. E. corner Firglade	C.	96	8″
S. side, 7′ E. of Washington road	C.	96	8″
S. side, 116′ W. of Sumner terrace, 6″ s. con.	C.	93	8″
S. side, 45′ W. of Dickinson street, 6″ s. con.	C.	92	8″
S. side, 9′ W. of Lester street, 6″ s. con. (*gate* 8′ 3″)	C.	90	8″
S. side, 103′ E. of Lyndale street, 6″ s. con.	C.	91	8″
S. side, 9′ W. of Spencer, 6″ s. con. (*gate* 7′ 2″)	C.	90	6″
S. side, 45′ E. of Thorndyke street	C.	90	6″
S. side, 15′ E. of No. 1079, 6″ s. con., r. g. (*gate* 9′ 9″)	C.	90	6″
SUMNER TERRACE.			
Center of terrace, 54′ N. of Sumner ave., 6″ 3-way (*gate* 4′ 2″)	C.	92	6″
Center of terrace, 375′ N. of Sumner ave., 6″ 3-way (*gate* 4′ 10″)	C.	92	6″
SWITZER AVENUE.			
S. side, 130′ E. of County street, 6″ (*gate* 2′ 10″)	Co.	78	6″
SYLVAN AVENUE.			
E. side, 70′ N. of Fountain place, 6″ s. con. (*gate* 4′)	C.	90	6″
TALCOTT AVENUE.			
N. E. corner Plainfield street, 6″ (*gate* 2′ 9″)	Co.	147	6″
N. side, opposite Nos. 35-37	C.	147	6″
TAYLOR STREET.			
N. E. corner Main, 8″ 4-way (*gate* 7′ 6″)	Co.	144	8″
S. side, 238′ E. of Main	M.	144	8″
N. side, 300′ E. of Power avenue, front of No. 58	M.	144	8″
N. side, 200′ E. of Dwight, 6″ s. con. (*gate* 3′)	C.	142	8″
N. W. corner Chestnut	C.	140	8″
TEMPLE STREET.			
S. side, 19′ E. of Maple	C.	130	4″
S. side, 45′ E. of W. line of High school	C.	126	4″
S. side, 5′ W. of School	C.	120	4″

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	Make.	Pressure.	Main Pipe.
TENTH STREET.			
N. E. corner Main	C.	143	6″
N. side, 3′ W. of No. 54	C.	145	6″
N. side, 9′ W. of No. 106	C.	145	6″
N. W. corner Chestnut	C.	137	6″
TERRENCE STREET.			
S. E. corner State, 6″ (*gate* 7′ 9″)	Co.	87	8″
E. side, 7′ N. of No. 35	M.	86	4″
THOMAS STREET.			
N. W. corner North Main, 6″ (*gate* 8′ 9″)	Co.	145	6″
N. side, opposite Nos. 29-31, 6″ (*gate* 4′ 2″)	Co.	145	6″
THOMPSON STREET.			
E. side, 4′ N. of State, 6″ (*gate* 6′)	Co.	85	30″
E. side, 310′ N. of State, 6″ (*gate* 6′)	Co.	85	30″
E. side, 275′ S. of Bay, 6″ (*gate* 4′ 6″)	Co.	85	30″
E. side, 307′ N. of Bay, 6″ (*gate* 3′)	Co.	85	30″
E. side, 47′ S. of St. James avenue, 6″ (*gate* 3′)	Co.	85	30″
N. E. corner St. James avenue, 6″ (*gate* 3′ 4″)	Co.	85	30″
E. side, 14′ N. of No. 173, 6″ (*gate* 3′)	Co.	85	30″
TOWNSLEY AVENUE.			
N. E. corner Main street, 6″ s. con., r. g. (*gate* 14′ 10″)	C.	144	6″
N. W. corner Market, 6″ 3-way (*gate* 11′ 4″)	C.	144	6″
TRACY AVENUE.			
S. E. corner Franklin street	C.	108	6″
TREMONT STREET.			
*N. side, 450′ E. of Second, 6″ (*gate* 3′ 8″)	Co.	94	8″
TRINITY TERRACE.			
S. E. corner Sumner avenue, 6″ 3-way	C.	90	6″
E. side, 300′ S. of Sumner avenue, 6″ (*gate* 4′ 2″)	Co.	90	6″

*Set since December 1.

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TYLER STREET.	Make.	Pressure.	Main Pipe.
N. E. corner Orleans	C.	87	6″
N. side, 217′ E. of Orleans	C.	86	6″
N. side, 445′ E. of Hancock	C.	85	6″
N. side, 450′ W. of Eastern avenue	C.	84	6″
N. W. corner Colton	C.	83	6″
UNION STREET.			
S. side, 35′ E. of N. Y., N. H. & H. R. R. tracks, 6″ (*gate* 6′ 10″)	Co.	145	8″
S. side, 15′ E. of No. 79	C.	145	6″
S. W. corner Main	C.	145	6″
N. E. corner Main	C.	145	6″
S. E. corner Dale	C.	145	6″
N. side, 9′ E. of Maple, 6″ s. con. (*gate* 6′)	Co.	127	6″
N. side, 405′ E. of Maple, opposite No. 263	C.	123	6″
N. side, opposite Ridgewood place, 6″ (*gate* 6′)	Co.	107	8″
N. E. corner Ingraham avenue, 6″ (*gate* 24′ 4″)	Co.	92	8″
N. side, opposite Mulberry, 6″ (*gate* 4′ 8″)	Co.	89	8″
S. W. corner Walnut	P.	87	8″
N. W. corner Stebbins	P.	86	8″
S. side, 21′ E. of No. 671	C.	85	6″
S. side, front of Nos. 717-719	C.	84	6″
S. W. corner Eastern avenue	C.	83	6″
N. side, 8′ W. of Colton	C.	83	6″
VAN NESS AVENUE.			
S. side, front of No. 34, 6″ s. con. (*gate* 4′ 10″)	Co.	81	6″
VENTURA STREET.			
E. side, 12′ S. of Alderman	C.	91	6″
VERMONT STREET.			
N. side, 218′ E. of Pomona, 6″ 3-way (*gate* 4′ 10″)	Co.	89	6″
N. side, front of Nos. 50-52, 6″ (*gate* 4′)	Co.	89	6″
VERNON STREET.			
N. side, 20′ W. of Main, 6″ s. con. (*gate* 6′ 8″)	C.	144	8″
N. side, 7′ W. of No. 40, 6″ (*gate* 6′ 3″)	Co.	144	6″

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	Make.	Pressure.	Main Pipe.
VINE STREET.			
N. W. corner Main	C.	142	6″
S. side, 17′ W. of No. 37	C.	141	6″
VINTON STREET.			
S. E. corner Franklin	C.	120	6″
N. E. corner Liberty	C.	126	6″
WAIT STREET.			
N. side, 411′ W. of Penacook avenue, 6″ 3-way (*gate* 3′ 5″)	C.	85	6″
WALKER STREET.			
S. side, 392′ W. of Water	C.	145	8″
S. side, 652′ W. of Water, 9′ E. of N. Y., N. H. & H. R. R. tracks (*gate* 2′ 8″)	C.	144	6″
WALNUT STREET.			
S. E. corner State, 6″ s. con. (*gate* 4′)	C.	87	12″
E. side, 6′ N. of Charter avenue	P.	87	12″
E. side, at Oak, 3′ S. of N. line of triangle	C.	88	8″
E. side, 9′ S. of Pendleton avenue	P.	88	8″
N. W. corner Belgrade place	C.	88	8″
E. side, 4′ N. of Marshall place, 6″ (*gate* 5′ 6″)	Co.	91	12″
W. side, 121′ S. of Melrose, 6″ (*gate* 7′ 11″)	Co.	96	24″
WALTER STREET.			
N. W. corner North Main	C.	146	6″
WALTHAM AVENUE.			
S. E. corner Wilbraham road	C.	83	6″
W. side, 300′ S. of Wilbraham road (*private*)	C.	84	6″
E. side, 619′ S. of Wilbraham road, 6″ s. con. (*gate* 3′)	Co.	84	6″
WAREHOUSE STREET.			
Opposite F. T. Ley & Company's warehouse, 6″ (*gate* 5′ 3″)	Co.	90	6″
WARNER STREET.			
S. side, front of No. 33, 6″ s. con	C.	100	6″

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	Make.	Pressure.	Main Pipe.
Warriner Avenue.			
N. side, 2′ E. of Nos. 32-34	C.	138	6″
Warwick Street.			
N. E. corner Heywood (*private*)	C.	118	6″
N. side, 173′ E. of Heywood (*private*)	C.	118	6″
N. side, 369′ E. of Heywood (*private*)	C.	118	6″
N. side, 652′ E. of Heywood, 6″ s. con.	C.	118	6″
Washburn Street.			
N. side, 7′ W. of Plainfield	C.	148	6″
N. side, opposite No. 65	C.	148	6″
N. side, 4′ W. of No. 138	C.	148	6″
Washington Road.			
E. side, 200′ N. of Pineywoods avenue	C.	97	6″
E. side, 164′ S. of Pineywoods avenue, 6″ 3-way (*gate* 6′ 3″)	C.	100	6″
E. side, 275′ E. of Firglade avenue, 6″ 3-way (*gate* 5′ 3″)	C.	98	6″
Wason Avenue.			
N. side, opposite No. 31	C.	147	10″
N. side, S. W. corner Baush Machine Company, 6″ s. con., r. g. (*gate* 4′ 2″)	C.	147	12″
N. W. corner North Main street, 6″ s. con., r. g. (*gate* 4′ 4″)	C.	147	12″
Water Street.			
E. side, 15′ S. of Railroad, 8″ 4-way (*gate* 20′)	C.	144	36″
E. side, 28′ N. of Hampden, 8″ 4-way (*gate* 17′ 6″)	Co.	144	36″
S. E. corner Hampden, 6″ s. con., r. g. (*gate* 3′ 8″)	C.	144	36″
N. E. corner Fort, 8″ 4-way (*gate* 15′ 10″)	Co.	144	36″
N. E. corner Worthington, 8″ 4-way (*gate* 16′ 6″)	Co.	144	36″
E. side, 7′ S. of Worthington, 8″ 4-way (*gate* 18′ 9″)	Co.	144	36″
E. side, 4′ S. of Myrick court, 6″ (*gate* 17′ 2″)	Co.	144	36″
E. side, 5′ N. of Bridge, 8″ 4-way (*gate* 7′ 6″)	Co.	144	36″
E. side, 18′ S. of Bridge, 8″ 4-way (*gate* 3′ 8″)	Co.	144	36″
E. side, 61′ N. of Wight pl., 8″ 4-way (*gate* 2′ 10″)	Co.	144	36″

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WATER STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
E. side, 59′ S. of Wight pl., 8″ 4-way (*gate* 3′ 5″)	Co.	144	36″
E. side, 15′ N. of Vernon, 8″ 4-way (*gate* 3′ 5″)	Co.	144	36″
E. side, 24′ S. of Vernon, 8″ 4-way (*gate* 4′ 6″)	Co.	144	36″
E. side, 15′ N. of Pynchon, 8″ 4-way (*gate* 4′ 6″)	Co.	144	36″
E. side, 24′ S. of Pynchon, 6″ (*gate* 7′ 8″)	Co.	144	36″
E. side, 140′ S. of Pynchon, 8″ 4-way (*gate* 8′ 11″)	Co.	144	36″
E. side, 11′ S. of Elm, 8″ 4-way (*gate* 7′ 7″)	Co.	144	36″
E. side, 5′ N. of State, 8″ 4-way (*gate* 8′ 7″)	Co.	144	36″
E. side, 17′ N. of Bliss, 8″ 4-way (*gate* 4′)	Co.	144	36″
E. side, 25′ S. of Bliss, 8″ 4-way (*gate* 3′ 10″)	Co.	144	36″
E. side, 17′ N. of Howard, 8″ 4-way (*gate* 3′ 6″)	Co.	145	36″
E. side, opposite Mechanic, 8″ 4-way (*gate* 3′ 2″)	Co.	145	36″
E. side, 7′ S. of Union, 8″ 4-way (*gate* 2′ 11″)	Co.	145	36″
E. side, 18′ S. of Wilcox, 8″ 4-way (*gate* 3′ 3″)	Co.	146	36″
E. side, 10′ N. of William, 8″ 4-way (*gate* 3′ 3″)	Co.	146	36″
E. side, 2′ N. of Banks pl., 8″ 4-way (*gate* 2′ 3″)	Co.	146	36″
E. side, 16′ S. of Margaret, 8″ 4-way (*gate* 3′ 2″)	Co.	146	36″
E. side, 9′ S. of Fremont, 8″ 4-way (*gate* 2′ 9″)	Co.	147	36″
E. side, 11′ N. of Walker, 8″ 4-way (*gate* 3′ 6″)	Co.	147	36″
E. side, 38′ S. of Lombard, 8″ 4-way (*gate* 3′ 9″)	Co.	147	36″
E. side, 6′ N. of Gardner, 8″ 4-way (*gate* 4′ 4″)	Co.	147	36″
WAVERLY STREET.			
N. E. corner North Main, 8″ 4-way (*gate* 7′ 2″)	C.	144	10″
N. W. corner North, 6″ 3-way (*gate* 6′ 6″)	C.	144	10″
N. side, 15′ W. of Chestnut, 6″ 3-way (*gate* 6′ 5″)	C.	137	10″
WEBSTER STREET.			
W. side, 11′ S. of Franklin, 6″ s. con. (*gate* 3′ 6″)	C.	115	6″
WELCOME PLACE.			
E. side, 221′ N. of Bay street	C.	83	6″
WELLINGTON STREET.			
E. side, 110′ N. of Marlborough, 6″ s. con	C.	83	6″
E. side, 210′ S. of Marlborough, 6″ (*gate* 5′)	Co.	83	6″
WENDELL AVENUE.			
S. side, 435′ E. of Main street, 6″ s. con	C.	148	6″

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	Make.	Pressure.	Main Pipe.
WEST STREET.			
In Hampden park, 293′ S. of West (*private*)	C.	147	6″
WESTERNVIEW STREET.			
N. E. corner Forest Park ave., 6″ s. con. (*gate* 7′)	Co.	96	6″
N. side, at angle, front of No. 26, 6″ s. con. (*gate* 4′ 9″)	Co.	96	6″
WESTFORD AVENUE.			
E. side, 4′ S. of Wilbraham road, 6″ s. con.	C.	83	6″
E. side, 475′ S. of Wilbraham road, 6″ s. con.	C.	84	6″
E. side, 24′ S. of No. 93, 6″ s. con.	C.	85	6″
E. side, opposite center of Gunn square, 6″ s. con.	C.	91	6″
WESTMINSTER STREET.			
N. E. corner State	P.	84	6″
S. E. corner Bay	C.	84	6″
E. side, 15′ S. of No. 151	C.	84	6″
E. side, 5′ S. of St. James avenue	C.	84	6″
WHITE STREET.			
E. side, at Allen	C.	90	6″
W. side, 168′ N. of Grand	C.	90	6″
W. side, 73′ N. of Orange	C.	91	6″
W. side, 3′ N. of Dawson, 6″ (*gate* 7′ 3″)	Co.	90	8″
W. side, at No. 332, 6″ s. con. (*gate* 4′ 9″)	C.	89	8″
N. W. corner Vermont, 6″ (*gate* 5′)	Co.	90	8″
N. W. corner Sumner avenue, 6″ (*gate* 5′ 8″)	Co.	90	8″
S. W. corner Priscilla place, 6″ s. con. (*gate* 7′)	Co.	90	12″
W. side, 350′ S. of Priscilla place, 6″ (*gate* 6′ 2″)	Co.	90	12″
W. side, 15′ N. of Longfellow terrace, 6″ 3-way (*gate* 7′)	C.	90	8″
N. W. corner Eleanor road, 6″ (*gate* 4′ 7″)	Co.	90	8″
S. W. corner Ainsworth, 6″ (*gate* 5′ 6″)	Co.	90	8″
S. W. corner Dwight road, near town line, 6″ (*gate* 5′ 6″)	Co.	90	6″
WHITNEY PLACE.			
N. side, 36′ W. of E. line of power house (*gate* 3′ 2″)	C.	145	4″

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	Make.	Pressure.	Main Pipe.
WHITTIER AVENUE.			
N. E. corner Hiawatha st., 6″ s. con. (*gate* 5′ 9″)	Co.	91	6″
E. side, 4′ S. of Priscilla st., 6″ s. con. (*gate* 5′ 6″)	Co.	91	6″
WIGHT PLACE.			
N. side, 262′ E. of Water street	C.	143	6″
WILBRAHAM AVENUE.			
E. side, 275′ S. of Wilbraham road	C.	84	6″
E. side, 106′ N. of Beverly street	C.	86	6″
E. side, 350′ S. of Beverly street	P.	86	6″
E. side, 350′ N. of King street, 6″ s. con	C.	86	8″
E. side, 7′ N. of King street, 6″ s. con	C.	86	8″
WILBRAHAM ROAD.			
N. side, 35′ E. of Waltham avenue (*private*)	C.	83	12″
N. side, front of House of Good Shepherd, 6″ s. con. (*gate* 10′ S. W.)	C.	85	8″
WILCOX STREET.			
S. W. corner Main (*gate* 22′ 8″ N. E.)	C.	146	6″
S. side, 4′ E. of No. 47	C.	146	6″
N. side, 42′ E. of railroad tracks	C.	145	4″
WILLARD AVENUE.			
W. side, 320′ S. of Shattuck street	C.	83	6″
WILLIAM STREET.			
N. side, 44′ E. of railroad tracks, 6″ (*gate* 6′)	Co.	144	8″
N. side, 2′ E. of Third Baptist church	C.	146	6″
N. side, front of No. 116	C.	146	6″
N. W. corner Main, 6″ (*gate* 4′ 5″)	Co.	146	6″
N. E. corner Main	C.	146	6″
S. side, 236′ E. of Main	C.	146	6″
N. W. corner Dale	C.	145	6″
WILLOW STREET.			
S. E. corner State	P.	144	10″
N. E. corner Cross, 6″ s. con. (*gate* 7′ 9″)	C.	145	10″
In yard of George W. Tapley (*private*)	C.	145	10″
N. E. corner Union, 6″ s. con., r. g. (*gate* 11′ 6″ S. W.)	C.	145	10″
N. E. corner Hubbard avenue (*gate* 7′)	C.	146	10″

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	Make.	Pressure.	Main Pipe.
WILMONT STREET.			
N. side, 226′ W. of Ranney, 6″ 3-way (*gate* 6′)	Co.	92	6″
N. side, 22′ W. of No. 64, 6″ s. con.	C.	92	6″
WINCHESTER SQUARE.			
S. E. corner State street, near engine house	C.	83	12″
WINCHESTER STREET.			
S. E. corner Wilbraham road	C.	83	4″
WINDSOR STREET.			
N. side, 8′ E. of Pine, 6″ s. con., r. g. (*gate* 3′ 9″)	C.	94	6″
N. side, 286′ E. of Pine, 6″ s. con., r. g. (*gate* 4′ 2″)	C.	97	6″
N. side, 45′ E. of Nos. 57-59, 6″ s. con., r. g. (*gate* 4′ 3″)	C.	104	6″
WINTHROP STREET.			
N. side, 5′ W. of Dale, 6″ s. con.	C.	144	6″
N. side, 275′ W. of Dale, 6″ s. con.	C.	145	6″
WOLCOTT STREET.			
E. side, 4′ N. of Nos. 28-30, 6″ s. con. (*gate* 4′ 8″)	C.	94	6″
WOODSIDE TERRACE.			
W. side, 7′ N. of No. 92, 6″ s. con.	C.	94	6″
WORCESTER AVENUE.			
N. E. corner Plainfield street	C.	147	6″
N. side, 24′ W. of Nos. 44-46	C.	147	6″
N. W. corner Fisk	C.	147	6″
WORTHINGTON COURT.			
N. side, east of angle, 6″ (*gate* 4′ 9″)	Co.	117	6″
WORTHINGTON STREET.			
N. side, opposite Broadway, 6″ s. con. (*gate* 10′ 8″)	C.	144	12″
N. side, 36′ E. of W. line of post office, 6″ s. con., r. g. (*gate* 10′ 4″)	C.	143	8″
S. side, 6′ W. of Main	C.	143	6″
N. E. corner Main, 6″ (*gate* 11′)	Co.	143	8″
N. side, 230′ E. of Main, 6″ 3-way (*gate* 9′ 6″)	Co.	143	8″
S. side, 268′ E. of Main	C.	143	6″

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WORTHINGTON STREET—(*Continued*).	Make.	Pressure.	Main Pipe.
S. E. corner Stearns square (W)	C.	143	6″
N. W. corner Dwight	C.	143	8″
S. side, 26′ E. of Dwight, 6″ 3-way (*gate* 4′)	Co.	143	8″
S. side, on W. line of Chestnut	C.	140	6″
E. side of Chestnut, 15′ N. of Worthington, 6″ s. con., r. g. (*gate* 12′ S.)	C.	140	10″
S. side, opposite Alert, 6″ (*gate* 2′ 6″)	Co.	135	6″
N. E. corner Alert	C.	135	8″
S. W. corner Spring, 6″ s. con. (*gate* 7′ 2″)	C.	130	6″
N. E. corner Spring, 6″ s. con., r. g. (*gate* 4′ 4″)	C.	129	8″
N. side, 266′ E. of Spring	C.	125	8″
N. E. corner Autumn, 6″ (*gate* 3′ 10″)	C.	122	8″
N. side, 465′ E. of Autumn (*gate* 1′ 10″)	C.	123	8″
N. side, opposite Sackett avenue	C.	122	8″
N. E. corner Kibbe avenue (*gate* 4′)	C.	115	8″
N. side, 19′ E. of No. 862	C.	105	8″
N. E. corner Federal	P.	92	8″
N. side, 9′ W. of Armory, 6″ s. con	C.	89	8″
S. side, 325′ W. of Bowdoin, 6″ s. con	C.	96	8″
S. side, 11′ W. of E. line of Thompson, 6″ (*gate* 3′ N.)	Co.	85	12″
YALE STREET.			
S. W. corner Monmouth	C.	83	6″
N. W. corner Harvard	C.	83	6″
N. W. corner Dartmouth	C.	83	6″
YORK STREET.			
N. side, 6′ W. of Main, 6″ 3-way (*gate* 2′ 6″)	C.	147	10″
N. side, 89′ E. of Pecousic ave., 6″ 3-way (*gate* 5′)	C.	147	8″
N. side, 99′ W. of Pecousic ave., 6″ 3-way (*gate* 4′ 5″)	C.	147	6″
N. side, 45′ W. of E. line of Hanover	C.	147	6″

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SUMMARY OF CITY HYDRANTS.

8″ hydrants	77
6″ hydrants	757
5″ hydrants	13
4″ hydrants	464
Total number of public hydrants in city, Dec. 1, 1911..	1,311

INDIAN ORCHARD.

	Make.	Pressure.	Main Pipe.
BEAUDRY STREET.			
E. side, 400′ S. of Main, 6″	C.	85	6″
BERKSHIRE AVENUE.			
S. side, opp. Fullerton st., 6″ s. con. (*gate* 18′ 6″)	C.	78	24″
S. side, 34′ E. of Fiberloid st., 6″ 3-way (*gate* 21′ 2″)	C.	79	24″
BERKSHIRE STREET.			
N. side, 195′ W. of Oak	C.	77	6″
N. side, 275′ E. of Oak, 6″ s. con., r. g. (*gate* 6′ 6″)	C.	75	6″
BOSTON ROAD (State Street).			
N. side, 31′ W. of Parker street, 6″ s. con	C.	79	6″
N. side, 725′ W. of preceding hydrant, front of A. P. Nichol's house, 6″ s. con	C.	77	6″
N. E. corner Pasco road, 6″ s. con	C.	77	6″
BURKE STREET.			
S. E. corner Falmouth	C.	77	6″
CEDAR STREET.			
N. W. corner Main	C.	90	4″
S. W. corner Water	C.	90	4″
CENTER STREET.			
N. side, 350′ E. of Oak	C.	90	6″
N. side, 404′ W. of Cedar	C.	90	6″
N. side, 400′ E. of Cedar, 5″ r. g. (*gate* 3′)	C.	88	6″

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INDIAN ORCHARD—Continued.

	Make.	Pressure.	Main Pipe.
CHESTNUT STREET.			
W. side, 10′ N. of Berkshire, 6″ s. con., r. g. (*gate* 9′ 3″)	C.	78	8″
W. side, 4′ N. of Hampden, 6″ s. con., r. g. (*gate* 5′ 9″)	C.	80	8″
W. side, 4′ S. of Worcester, 6″ s. con., r. g. (*gate* 7′ 3″)	C.	84	8″
FRONT STREET.			
S. side, 16′ W. of office of Lillie's Waste Mill, 6″ s. con.	C.	88	8″
S. side, 209′ E. of W. line of Myrtle, 6″ s. con.	C.	88	8″
HAMPDEN STREET.			
N. side, 9′ W. of Pine, 6″ 3-way (*gate* 4′)	C.	78	6″
N. side, 252′ W. of Pine, 6″ 3-way (*gate* 4′ 6″)	C.	78	6″
S. W. corner Oak	C.	78	4″
S. E. corner Myrtle	P.	79	4″
S. E. corner Chestnut	C.	80	4″
S. side, 297′ W. of Chestnut, 6″ s. con., r. g. (*gate* 4′ 3″)	C.	80	6″
S. side, 8′ E. of Holly, 6″ s. con., r. g. (*gate* 5′ 9″)	C.	80	6″
HAMPSHIRE STREET.			
N. W. corner Myrtle	C.	75	4″
HEALEY AVENUE.			
S. E. corner Worcester street, 5″ r. g. (*gate* 3′)	C.	85	6″
N. E. corner South street, 5″ r. g. (*gate* 5′)	C.	76	6″
E. side, 375′ S. of South street, 5″ r. g. (*gate* 6′ 6″)	C.	73	6″
HOLLY STREET.			
E. side, 5′ S. of Worcester, 6″ s. con. (*gate* 6′ 8″)	C.	83	6″
INDIAN LEAP STREET.			
E. side, 255′ N. of Main, 6″ s. con. (*gate* 6′)	C.	93	6″

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INDIAN ORCHARD—Continued.

	Make.	Pressure.	Main Pipe.
Lyons Street.			
E. side, 19′ S. of Worcester, 6″ s. con., r. g. (*gate* 6′ 4″)	C.	73	6″
E. side, front of No. 11, 6″ s. con., r. g. (*gate* 6′ 4″)	C.	71	6″
Main Street.			
N. side, 252′ W. of Myrtle	P.	86	8″
N. W. corner Myrtle	P.	86	8″
N. side, 272′ W. of Oak, 6″ s. con. (*gate* 21′ 10″)	C.	86	24″
S. side, 247′ E. of Pine, 6″ (*gate* 20′)	C.	87	24″
N. side, 460′ E. of Cedar, 6″	C.	84	8″
N. side, 38′ W. of Lyons	C.	83	8″
N. side, 158′ W. of Indian Leap, 6″ s. con	C.	80	8″
N. side, 37′ W. of stone bound of town line for Springfield and Wilbraham	C.	96	6″
Milton Street.			
E. side, 6′ S. of Main, 6″	C.	80	6″
E. side, 600′ S. of Main, 6″	C.	76	6″
Moore Avenue.			
E. side, 124′ N. of Edward street, 5″ r. g. (*gate* 3′ 10″)	C.	72	6″
Myrtle Street.			
N. E. corner Berkshire	P.	79	8″
Oak Street.			
E. side, 24′ S. of Water	C.	94	8″
N. E. corner Main	C.	86	8″
N. E. corner Hampshire	C.	75	6″
S. W. corner Essex, 3-way (*gate* 28′ 4″)	C.	73	4″
W. side, 167′ S. of Essex, 3-way (*gate* 27′ 6″)	C.	72	4″
E. side, 350′ S. of Franklin	C.	74	4″
E. side, 8′ N. of High	C.	72	6″
N. side, front of No. 340, 6″ s. con.	C.	71	8″
N. side, near Springfield Foundry Co., 5″ 3-way (*gate* 6′ 4″)	C.	72	6″
N. side, 34′ W. of E. line of Moore ave., 6″ s. con.	C.	73	6″

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INDIAN ORCHARD—Continued.

	Make.	Pressure.	Main Pipe.
Orchard Avenue.			
E. side, 450′ S. of South street, 5″ r. g. (*gate* 4′ 6″)	C.	72	6″
Parker Street.			
S. W. corner Main	C.	94	6″
W. side, 116′ N. of S. line of Falmouth avenue (*gate* 3′ 2″)	C.	85	6″
W. side, 45′ S. of No. 83	C.	81	6″
W. side, opposite No. 145, 6″ s. con	C.	78	6″
W. side, 70′ S. of Edward, 6″ s. con	C.	74	6″
W. side, 700′ S. of railroad bridge	C.	77	4″
Pasco Road.			
E. side, 30′ N. of old Bay road	C.	75	6″
E. side, opposite Sunnyside avenue	C.	73	6″
E. side, 4′ S. of Essex street, 6″ s. con	C.	73	6″
Pine Street.			
S. W. corner Main	P.	87	6″
N. W. corner Worcester (*gate* 13′ 7″ E. of W. line of Pine, 10′ 6″ S. of N. line Worcester	C.	87	6″
N. W. corner Hampshire	C.	75	6″
W. side, 36′ N. of Essex, 6″ 4-way (*gate* 1′ 9″)	C.	74	6″
Quebec Street.			
S. side, 375′ W. of Indian Leap, 5″ r. g. (*gate* 4′ 3″)	C.	95	6″
S. side, 703′ W. of Indian Leap, 15′ W. of Nos. 5-7, 5″ r. g. (*gate* 4′ 5″)	C.	95	6″
Rapalus Avenue.			
E. side, 400′ S. of Parker street (*gate* 4′ 6″)	C.	83	6″
Rogers Avenue.			
E. side, 238′ S. of Main street, 5″ r. g. (*gate* 2′ 6″)	C.	88	6″

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INDIAN ORCHARD—Continued.

Water Street.	Make.	Pressure.	Main Pipe.
S. side, 241′ E. of Oak, 6″ s. con.	C.	94	6″
In lot N. of Athol Branch station, 12′ N. of branch track to storehouse, 53′ E. of storehouse, 6″ s. con. (*gate* 26′ 5″ S. of station, 11′ 5″ E. of same.	C.	94	6″
Worcester Street.			
N. side, midway Chestnut and Myrtle, 6″ (*gate* 7′ 6″)	Co.	84	16″
S. W. corner Myrtle	P.	84	6″
N. side, 339′ W. of Oak, 6″ s. con. (*gate* 27′ 8″)	C.	85	6″
S. W. corner Oak	C.	86	6″
N. side, 75′ E. of East, 6″	C.	90	6″
N. side, 250′ W. of Lyons	C.	90	6″

Summary of Indian Orchard Hydrants.

6″ hydrants	37
5″ hydrants	10
4″ hydrants	35
Total number of public hydrants in Indian Orchard, December 1, 1911	82

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APPENDIX XIV.

STREET WATERING HYDRANTS CONNECTED WITH THE WORKS.

Crane Hydrants.—For Cart Sprinklers

(**Belongs to Street Watering Department.*)

No.	Location.
1.	*Fort street, S. E. corner Water.
2.	Cypress street, S. W. corner Main.
3.	Main street, S. E. corner Tenth.
4.	Fulton street, N. E. corner Auburn.
5.	North Main street, near Carew.
6.	*John street, N. W. corner Plainfield.
7.	Plainfield street, west side, midway Lowell and Washburn.
8.	*Plainfield street, at Clayton.
9.	*Hyde avenue, N. E. corner Plainfield street.
10.	North Main street, east side, opposite Grace.
11.	Springfield street, S. E. corner Chestnut.
12.	North Main street, east side, opposite Douglas.
13.	*Birnie avenue, east side, north of Thomas.
14.	Alexander street, S. E. corner North.
15.	Jefferson avenue, north side, near Chestnut street.
16.	*Birnie avenue, midway Huntington and Greenwich streets.
17.	Arch street, near North Main.
18.	*Brookline avenue, N. E. corner North street.
19.	*Massasoit street, south of Prospect.
20.	*Grosvenor street, N. W. corner Chestnut.
21.	Everett street, N. E. corner Chestnut.
22.	Carew street, south side, east of Arbor.
23.	Cass street, east side, north of Linden.
24.	Chestnut street, east side, at Franklin (south).
25.	*Franklin street, opposite Vinton.
26.	Liberty street, south side, opposite Webster.
27.	*Liberty street, opposite Genesee.
28.	Armory street, east side, south of Liberty.
29.	*Armory street, north of Carew.
30.	*Carew street, east of Liberty.

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No.	Location.
31.	*Grover street, N. E. corner Armory.
32.	*Cleveland street, N. W. corner Liberty.
33.	*Armory street, at Warwick (south).
34.	Worthington street, N. E. corner Kibbe avenue.
35.	Worthington street, front of house No. 725.
36.	Spring street, near S. E. corner Worthington.
37.	Dwight street, near N. E. corner Taylor.
38.	Dwight street, S. W. corner Hillman.
39.	Sanford street, S. W. corner Dwight.
40.	Chestnut street, west side, opposite Edwards.
41.	State street, N. E. corner Byers.
42.	Byers street, near S. E. corner Pearl.
43.	State street, S. W. corner Federal.
44.	Armory street, east side, north of Grant.
45.	Magazine street, west side, south of Armory.
46.	St. James avenue, N. E. corner Magazine.
47.	*Florida street, S. E. corner Worthington.
48.	Thompson street, N. E. corner St. James avenue.
49.	Worthington street, S. E. corner Clarendon.
50.	*Dartmouth terrace, opposite No. 71.
51.	St. James avenue, north of Princeton street.
52.	*Yale street, S. W. corner Monmouth.
53.	Amherst street, N. E. corner Princeton.
54.	*Dartmouth street, west of Bay.
55.	Bay street, N. W. corner Buckingham place.
56.	*McKnight street, at No. 12.
57.	Bay street, S. W. corner Marion.
58.	Cambridge street, S. E. corner Bay.
59.	Andrew street, west side, opposite Dawes.
60.	Amaron street, S. E. corner State.
61.	*Shattuck street, east of College avenue.
62.	State street, N. E. corner Willard avenue.
63.	*Westford avenue, near No. 84.
64.	Wilbraham road, south side, east of Massachusetts avenue.
65.	Northampton avenue, N. W. corner Gunn square.
66.	Wilbraham road, at engine house.
67.	Monroe street, N. W. corner Eastern avenue.
68.	*Tyler street, at Eastern avenue.
69.	Hancock street, at State (south).

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No.	Location.
70.	*Quincy street, south side, east of Orleans.
71.	Quincy street, near N. E. corner Hancock.
72.	King street, N. W. corner Hancock.
73.	Eastern avenue, S. W. corner King street.
74.	Eastern avenue, N. W. corner Alden street.
75.	*Alden street, at Hickory.
76.	Walnut street, opposite Manhattan.
77.	Alden street, S. E. corner Hancock.
78.	Walnut street, east side, south of Queen.
79.	Pine street, south of cemetery gate.
80.	Oak street, east side, near Walnut.
81.	*Mulberry street, east side, near Union.
82.	Mulberry street, at Ridgewood place.
83.	*School street, S. E. corner High.
84.	Maple street, S. E. corner Central.
85.	Pine street, N. W. corner Central.
86.	Pine street, N. E. corner Maple.
87.	Central street, N. W. corner Spruce.
88.	Mill street, at Allen.
89.	*Hickory street, near No. 181.
90.	Allen street, at No. 161.
91.	*Allen street, front of No. 285.
92.	*Allen street, east of railroad tracks.
93.	White street, opposite No. 50.
94.	White street, N. W. corner Orange.
95.	*Revere street, at Grand (south).
96.	Oakland street, N. W. corner Orange.
97.	Dickinson street, S. E. corner Oakland.
98.	*Dickinson street, between Keith and Hall.
99.	Belmont avenue, at top of hill.
100.	Belmont avenue, opposite Mountainview street.
101.	*Westernview street, at Forest Park avenue (north).
102.	Belmont avenue, N. E. corner Oakland street.
103.	*Dickinson street, in park at Wilmont.
104.	*Grenada terrace, east of Ventura street.
105.	Sumner avenue, S. W. corner Dickinson street.
106.	*Dickinson street, opposite Hollywood.
107.	*Sumner avenue, east of Ormond street.
108.	*Sumner avenue, east of Lyndale street.

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No.	Location.
109.	*Sumner avenue, east of street railway car barn.
110.	Sumner avenue, opposite Churchill street.
111.	Garfield street, at Greenleaf (west).
112.	Sumner avenue, near Washington road.
113.	*Washington road, corner Pineywoods avenue.
114.	*Maplewood terrace, near Riverview terrace.
115.	Magnolia terrace, near house No. 77.
116.	Sumner avenue, S. E. corner Beechwood.
117.	Spruceland avenue, at Cherryvale.
118.	Main street, end of pipe at Pecousic brook.
119.	Sumner avenue, west of Beechwood.
120.	Fort Pleasant avenue, near Riverview terrace.
121.	Mill street, S. E. corner Locust.
122.	Pine street, at Mill.
123.	Mill street, north side, about 100 feet east of Cherry lane.
124.	Main street, at Mill river.
125.	Main street, at Locust.
126.	*Broad street, near Main.
127.	*Norwood street, at Hanover.
128.	Loring street, N. E. corner Water.
129.	Adams street, N. E. corner Main.
130.	*William street, N. E. corner Main.
131.	*Wilcox street, west of Water.
132.	Park street, east of Willow.
133.	Howard street, S. W. corner Water.
134.	Pynchon street, north side, near Water.

INDIAN ORCHARD

(**Belongs to Street Watering Department.*)

No.	Location.
1.	*Worcester street, west of Chestnut.
2.	*Hampden street, near Chestnut
3.	Myrtle street, S. E. corner Hampshire.
4.	Hampshire street, S. W. corner Oak.
5.	Oak street, near old Bay road.
6.	Worcester street, S. W. corner Oak.
7.	Worcester street, near No. 236.
8.	*Main street, south side, west of Johnson.

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No.	Location.
9.	Main street, north side, east of No. 408.
10.	Cedar street, east side, near Main.
11.	Main street, S. E. corner Myrtle.

Track Hydrants—For Car Sprinklers.

(*All belong to Street Watering Department.*)

No.	Location.
1.	North Main street, at Morgan.
2.	Bradford street, at Plainfield.
3.	Hyde avenue, at Plainfield street.
4.	Wason avenue, at North Main street.
5.	Hooker street, at North Main.
6.	Montmorenci street, at Chestnut.
7.	Liberty street, at Charles.
8.	Liberty street, at Armory.
9.	Liberty street, north of No. 799.
10.	Worthington street, east of Federal.
11.	Amherst street, at Princeton.
12.	Catharine street, at Pease.
13.	College street, at State.
14.	State street, west of No. 1365.
15.	Wilbraham road, opposite Homer street.
16.	Wilbraham road, east of Benton street.
17.	Hancock street, near State.
18.	St. James avenue, at Bay street.
19.	High street, at Walnut.
20.	Central street, at top of hill.
21.	King street, near Eastern avenue.
22.	Mill street, opposite Lincoln hall.
23.	White street, at Gordon.
24.	Sumner avenue, at Belmont (west).
25.	Sumner avenue, opposite car barn.
26.	Litchfield street, at Belmont avenue.
27.	Fort Pleasant avenue, at Riverview terrace.
28.	Main street, at Norwood.
29.	Maple street, at Park.
30.	Elm street, at Court square.

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APPENDIX XV.

WATERING TANKS AND DRINKING FOUNTAINS CONNECTED WITH THE WORKS.

Bradford street, at Plainfield,	1
Cypress street, at Main,	1
Liberty street, at Armory,	1
Main street, near Cypress (ice-water drinking fountain),	1
Main street, at Court square ("Wesson" drinking fountain),	1
Main street, at Locust,	1
Main street, near Sargeant (ice-water drinking fountain),	1
Main street, I. O., at Oak,	1
Mill street, at Watershops,	1
Oak street, I. O., at Main (ice-water drinking fountain),	1
Springfield street, at Armory,	1
State street, at Federal,	1
State street, at Federal (ice-water drinking fountain),	1
State street, at Winchester park,	1
State street, at Winchester park ("Willard" drinking fountain),	1
State street, at Berkshire avenue, opposite Catholic cemetery,	1
Sumner avenue, at Belmont,	1
Worthington street, at Stearns park,	1
Total,	18

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APPENDIX XVI.

PUBLIC PARKS AND FOUNTAINS CONNECTED WITH THE WORKS.

Benton park, State street, between Federal and Magazine,	1
Calhoun park, Chestnut street, between Calhoun street and Jefferson avenue (pond and fountain),	1
Clarendon park, Clarendon street, at Bay,	1
Concord terrace park, Concord terrace,	1
Dartmouth park, Dartmouth street, at Bay,	1
Floral park, Spruceland avenue, at Florentine gardens,	1
Forest park, Sumner avenue (pond and fountain),	1
Garfield triangle, Garfield street, between Fairfield and Greenleaf,	1
Kibbe park, Federal street, at Armory,	1
Magnolia terrace park, Magnolia terrace (two fountains),	1
Marengo park, midway of street,	1
McKnight park, Buckingham street, at Bay,	1
Mill street park, Mill street, at Pine,	1
Stearns park, between Bridge and Worthington streets,	1
Thompson park, St. James avenue, at Worthington street,	1
Winchester park, State street, at Wilbraham road (park only;—no fountain besides drinking fountain, classified elsewhere),	1
Total parks,	16

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APPENDIX XVII.

WATER ANALYSES,

WEST PARISH FILTERS—1911.

Chemists,
C. N. HARRUB, Jan. 1 to Sept. 1.
H. F. SALMONDE, Nov. 1 to Dec. 31.

Chief Engineer,
E. E. LOCHRIDGE.

EXPLANATION.

Color, Turbidity, Alkalinity, Hardness, Dissolved Oxygen, Carbon Dioxide (CO_2), and Iron stated in parts per million.

River=Raw water sample taken from tunnel as drawn directly from river.

L—Under bacteria=Plate liquefied. Count impossible.

+—Under B-Coli.—indicates gas formation.

L.L.A.—(Litmus Lactose Agar.)=Number of red colonies.

Temperature in degrees Fahrenheit.

Under tastes and odors:—

Numeral indicates intensity, i. e.:—

0=None.
1=Very faint, not discernible by users but detected in laboratory.
2=Faint, discernible by users.
3=Distinct.
4=Decided.

Letter indicates character, i. e.:—

E=Earthy.
F=Fishy.
V=Vegetable.

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January 1911		TEMPERATURE F.		TURBIDITY.			ODOR.				COLOR.				ALKALINITY.		HARDNESS.		OXYGEN DISSOLVED.		
							Hot.		Cold.												
Date.	Day.	River.	Filtered.	River.	Settled.	Filtered.	River.	Filt'd.	River.	Filt'd.	River.	Settled.	Filtered.	City.	River.	Filtered.	River.	Filtered.	Settled.	Aerator.	Filtered.
1	Sun.																				
2	Mon.	33	33	0	0	0	2v	1v	0	0	42	38	25	15	9.0	6.0	12.0	12.5			
3	Tues.	34	33	0		0	2v	1v	0	0	42		28	16	11.0	7.0	12.5	12.5			
4	Wed.	33	34	0		0	2v	1v	0	0	39		25	22	11.0	7.0	12.5	14.0			
5	Thurs.	32	33	0		0	2v	1v	0	0	48		33	22	8.5	5.0	11.0	11.0			
6	Fri.	33	32	0		0	2v	2v	1v	0	50		40	26	8.2	5.8	11.5	12.0			
7	Sat.	32	32	0		0	2v	1v	1v	0	48		40	32	8.5	8.5	11.5	12.0			
8	Sun.																				
9	Mon.	34	32	0		0	2v	2v	1v	0	48		40	32	13.0	7.8	11.5	11.5			
10	Tues.	32	32	0		0	1v	1v	1v	0	40		38	33	10.5	7.5	11.0	11.0			
11	Wed.	32	32	0	1	0	2v	2v	1v	0	39	41	36	33	9.5	9.5	10.5	11.0	17.25	17.73	17.60
12	Thurs.	32	32	0	0	0	1v	1v	0	0	37	41	34	27	12.0	8.3	11.0	11.0			
13	Fri.	32	32	0	0	0	2v	1v	0	0	35	40	32	26	14.0	10.0	10.5	11.0			
14	Sat.	33	32	0	0	0	1v	1v	0	0	33	37	30	22	10.8	8.7	10.5	10.5			
15	Sun.													24							
16	Mon.	32	32	0	0	0	2v	1v	0	0	32	40	28	28	9.5	6.5	10.5	10.5			
17	Tues.	32	32	0	0	0	1v	1v	1v	0	30	39	28	27	10.0	6.0	11.0	11.0			
18	Wed.	32	32	0	0	0	1v	1v	0	0	30	39	27	24	8.8	6.8	10.5	10.5	20.50	18.30	18.33
19	Thurs.	32	32	0	0	0	2v	1v	1v	0	30	39	26	24	9.5	8.0	11.0	11.0			
20	Fri.	32	32	0	0	0	1v	1v	0	0	30	38	26		10.0	8.8	12.0	12.0			
21	Sat.	32		0	0	0	2v		0		30	34			9.7		12.0				
22	Sun.																				
23	Mon.	32	32	0	0	0	1v	1v	0	0	30	35	26	26	9.0	8.8	9.5	9.5			
24	Tues.	32	32	0	0	0	3v	1v	0	0	48	35	25	24	13.0	9.5	12.0	11.0	14.25	15.39	15.12
25	Wed.	32	32		0	0	3v	1v	1v	0		35	29	23		9.5		10.5			
26	Thurs.	32	32		0	0	3v	1v	0	0	51	34	24	23		7.5		12.0			
27	Fri.	32	32		0	0	3v	1v	0	0		32	23	23		8.5		12.5			
28	Sat.	32	32		0	0	3v	1v	0	0	51	32	19	23		7.0		12.5			
29	Sun.										50										
30	Mon.	32	32		1	0	3v	1v	1v	0		38	18	22		6.0		12.5			
31	Tues.																				
Average.		33	32	0		0	2v	1v	0 1v	0	40	37	39	25	10.3	7.7	11.2	11.5	17.38	17.14	17.02

February—1911																					
1	Wed.	32	32		1	0	2v	1v	1v	0	48	35	20	22		5.0		12.5			
2	Thurs.	32	32		1	0	1v	1v	0	0		34	13	22		5.5		12.5		14.50	14.49
3	Fri.	32	32		1	0	2v	1v	0	0	36	27	8	14		4.5		12.5			
4	Sat.	32	32	1	1	0	2v	1v	0	0	36	29	8	10	10.0	5.0	11.0	10.5			
5	Sun.																				
6	Mon.	32	32	0	0	0	2v	1v	1v	0	30	30	17	12	10.2	4.5	10.5	10.5			
7	Tues.	32	32	0	0	0	2v	1v	1v	0	30	30	20	16	10.5	7.5	10.0	12.0		14.71	14.49
8	Wed.	32	32	0	0	0	2v	1v	1v	0	28	30	21	22	14.5	7.5	11.0	12.5			
9	Thurs.	32	32	0	0	0	2v	1v	1v	0	28	29	22	18	12.5	8.0	10.0	10.5			
10	Fri.	32	32	0	0	0	2v	1v	0	0	25	26	22	20	11.5	10.5	12.5	12.5			
11	Sat.	32		0			2v		0		25			20	10.5		12.5				
12	Sun.																				
13	Mon.	32		0			2v		0		24				8.0		12.5				
14	Tues.	32		0			2v		0		23				10.0		12.0				
15	Wed.	32		0			2v		0		23				10.0		12.0				
16	Thurs.	32		0			1v		0		23				13.0		12.5				
17	Fri.	32		0			1v		0		23				11.0		12.5				
18	S t	32		0			1v		0		22				13.0		12.5				
19	Sun.																				
20	Mon.	32		0			1v		0		22				10.0		12.5				
21	Tues.	32		0			1v		0		21				10.0		12.5				
22	Wed.	32		0			1v		0		20				10.5		12.5				
23	Thurs.	32		0			1v		0		20				11.5		12.5				
24	Fri.	32		0			1v		0		19				10.5		12.5				
25	Sat.	32		0			1v		0		19				11.0		12.5				
26	Sun.																				
27	Mon.																				
28	Tues.	32		0			1v		0		20				10.5		12.5				
Average.		32	32	0	0 1	0	2v	1v	0	0	26	30	17	18	10.9	6.4	12.0	11.8			

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CARBON DIOXIDE.			IRON.		BACTERIA PER CUBIC CENTIMETER.								PRESUMPTIVE TEST B. COLI.						COAGULANT.	January 1911	
							Filter Effluents.						River.			Filtered.					
													Gas.			Gas.					
River.	Settled.	Filtered.	River.	Filtered.	River.	Aerator.	1	2	3	4	5	6	Mixed.	1c.c.	5c.c.	L. L. Agar.	1c.c.	5c.c.	L. L. Agar.	Grains Per Gallon.	Day.	Date.
																					Sun.	1
3.0	5.0	5.0	0.45	0.15	2390	2390	1575	102	1320		1155	2140	1450	−	+		−	−		0.00	Mon.	2
3.5		6.5	0.40	0.12	2270	2940	2100	1880	912		1680	1640	2060	+	+		−	−		0.00	Tues.	3
4.0		9.0	0.50	0.25	3900		820	780	245		880	490	725	−	+		−	−		0.00	Wed.	4
4.5		6.2	0.90	0.33	5420	4850	1800	1450	273		1120	1080	1500	+	+		−	−		0.00	Thurs.	5
3.0		5.5	0.95	0.25	1218	1680	1128	1250	450		840	816	720	−	+		−	−		0.00	Fri.	6
4.0		4.5	0.80	0.40	890	896	455	840	287		476	600	521	+	+		−	+		0.00	Sat.	7
																					Sun.	8
5.0		4.0	0.50	0.35	800	546	330	400	150		245	330	370	−	+	−	−	−	−	0.00	Mon.	9
2.8		4.0	0.45	0.35	828	840	210	180	75		132	158	132	−	+	−	−	−	−	0.00	Tues.	10
2.5	3.0	4.0	0.30	0.30	448	609	165	120	53		157	185	111	−	+	−	−	−	−	0.00	Wed.	11
3.0	3.2	3.5	0.28	0.40	490	420	134	191	83		122	171	147	−	+	−	−	−	−	0.00	Thurs.	12
3.5	4.3	3.5	0.55	0.25		392	135	97	58		117	160	122	−	+	−	−	−	−	0.00	Fri.	13
3.0	4.0	4.0	0.30	0.25	600	750	111	116	62		111	147	108	−	+	−	−	−	−	0.00	Sat.	14
																					Sun.	15
3.0	3.0	3.0	0.28	0.40	281	336	39	26	15		22	25	15	−	−	−	−	−	−	0.00	Mon.	16
3.0	5.3	3.5	0.28	0.30	336	336	47	36	25		41	41	27	−	−	−	−	−	−	0.00	Tues.	17
2.5	5.5	3.5	0.28	0.15	322	288	31	30	15		44	36	18	−	−	−	−	−	−	0.00	Wed.	18
3.5	5.0	3.8	0.28	0.15	266	288	43	32	14			64	28	−	−	−	−	−	−	0.00	Thurs.	19
3.5	5.5	4.0	0.28	0.15	384	324	35	38	37		39	45	38	−	−	−	−	−	−	0.00	Fri.	20
3.2	6.5		0.25																	0.00	Sat.	21
																					Sun.	22
3.5		5.0	0.35	0.15	217	210	16	16	18	72	29	21	16	−	−	−	−	−	−	0.00	Mon.	23
4.0	5.5	4.0	0.65	0.15		490		14	16	88	16		23	−	−	−	−	−	−	1.88	Tues.	24
	10.5	4.5		0.20	371	224	17	14	24	110	22	31	43	−	−	−	−	−	−	1.22	Wed.	25
	8.3	4.2		0.30																1.25	Thurs.	26
	8.5	6.0		0.15	413	175	23	12	15	64	15	76	29	−	−	−	−	−	−	1.05	Fri.	27
	8.5	6.5		0.30	672	192	3	11		28	7	10	11	−	−	−	−	−	−	0.00	Sat.	28
																				1.11	Sun.	29
	8.5	8.2		0.30	6900	4800	208	126		441	98	112	208	−	−	−	−	−	−	1.25	Mon.	30
																				1.40	Tues.	31
3.4	5.9	4.8	0.41	0.25	1398	1085	428	335	197	133	335	381	366	−	−	−	−	−	−	0.30	Average.	

February—1911

	10.0	9.0		0.12	1400	1400	40	105		180		126	154	−	−	−	−	−	−	1.23	Wed.	1
	10.5	8.5		0.20	1586	1800	72	88		162		66	90	−	−	−	−	−	−	1.36	Thurs.	2
	10.5	8.5		0.20	2520		36	48		190	34	100	110	−	−	−	−	−	−	1.36	Fri.	3
3.0	7.0	8.5	0.65	0.20	3108	1799	56	104		236	47	139	135	−	−	−	−	−	−	0.00	Sat.	4
																					Sun.	5
2.5	5.2	5.8	0.30	0.20	1988	2310	77	154		252	140	224	161	−	+	−	−	−	−	0.00	Mon.	6
3.0	3.5	5.5	0.30	0.12	1218	1400	49	53		102	72	74	50	−	−	−	−	−	−	0.00	Tues.	7
3.5	3.0	4.8	0.25	0.20	784	1127	24	35		77	68	39	48	−	−	−	−	−	−	0.00	Wed.	8
3.5	4.0	5.7	0.25	0.15	528	846	20	26		80	20	45	31	−	−	−	−	−	−	0.00	Thurs.	9
3.0	3.5	5.5	0.25	0.12	546	1029	36	54		121	41	89	74	−	−	−	−	−	−	0.00	Fri.	10
3.0			0.25																		Sat.	11
																					Sun.	12
3.0			0.20																		Mon.	13
2.2			0.20																		Tues.	14
2.5			0.15																		Wed.	15
2.5			0.12																		Thurs.	16
2.0			0.12																		Fri.	17
2.5			0.15																		Sat.	18
																					Sun.	19
2.0			0.20																		Mon.	20
2.0			0.15																		Tues.	21
2.0			0.12																		Wed.	22
2.5			0.12																		Thurs.	23
2.5			0.12																		Fri.	24
2.5			0.12																		Sat.	25
																					Sun.	26
																					Mon.	27
3.0			0.20																		Tues.	28
3.6	6.4	6.9	0.21	0.17	1514	1464	46	74		155	60	100	95	−	−	−	−	−	−	0.40	Average.	

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March 1911		TEMPERATURE F.		TURBIDITY.			ODOR.				COLOR.				ALKALINITY.		HARDNESS.		OXYGEN DISSOLVED.		
							Hot.		Cold.												
Date.	Day.	River.	Filtered.	River.	Settled.	Filtered.	River.	Filt'd.	River.	Filt'd.	River.	Settled.	Filtered.	City.	River.	Filtered.	River.	Filtered.	Settled.	Aerator.	Filtered.
1	Wed.	32		0			1v		0		20				10.0		12.5				
2	Thurs.	32		0			1v		0		28				10.0		12.5				
3	Fri.	32		0			1v		0		30				10.0		12.5				
4	Sat.	32		0			1v		0		29				11.0		12.5				
5	Sun.																				
6	Mon.	32		0			1v		0		25				10.0		12.5				
7	Tues.																				
8	Wed.	32		0			1v		0		26				10.0		11.5				
9	Thurs.	32		0			1v		0		25				11.0		12.5				
10	Fri.	32		0			1v		0		24				10.0		12.5				
11	Sat.	32		0			1v		0		24				10.0		12.5				
12	Sun.																				
13	Mon.	32		0			2v		0		23				10.0		12.0				
14	Tues.	32		0			1v		0		24				10.0		12.5				
15	Wed.	32		0			1v		0		27				12.0		12.5				
16	Thurs.	32		10			2v		1v		42				9.0		11.0				
17	Fri.	32		10			2v		1v		45				8.0		12.5				
18	Sat.	32		7			2v		1v		40				11.0		12.5				
19	Sun.																				
20	Mon.	32		0			2v		1v		30				9.0		12.5				
21	Tues.	32		0			1v		1v		29				9.0		11.5				
22	Wed.	32		0			1v		0		28				11.0		12.5				
23	Thurs.	32		5			2v		1v		45				12.0		12.5				
24	Fri.																				
25	Sat.																				
26	Sun.																				
27	Mon.																				
28	Tues.										40		30								
29	Wed.										40		30								
30	Thurs.										40		30								
31	Fri.	33	33	10	0	0	2v	2v	1v	0	40	13	35		6.0	7.5	8.0	10.5			
Average.		32	33	2	0	0	1v		1v		31	13	31		10.0	7.5	12.1	10.5			

April—1911

1	Sat.	33		5	0		2v		1v		40	24			8.0		9.5				
2	Sun.																				
3	Mon.	32		0			1v		0		37				9.0		11.0				
4	Tues.	32		0			2v		1v		31				8.5		9.5				
5	Wed.	32		0			2v		1v		33				8.0		10.5				
6	Thurs.	32		0			2v		1v		32				9.0		11.0				
7	Fri.	32		10			2v		1v		38				6.5		8.0				
8	Sat.																				
9	Sun.																				
10	Mon.																				
11	Tues.																				
12	Wed.	34	35	5	0	0	2v	1v	1v	0	39	23	19		6.5	5.5	11.0	11.0			
13	Thurs.	35	36		0	0	2v	0	1v	0		23	13	22		7.0		11.5			
14	Fri.	36	36		0	0	2v	1v	1v	0		23	10	14		6.5		12.0			
15	Sat.	36	36	5	0	0	2v	1v	1v	0	48	19	6	11	7.5	5.0	11.5	12.0			
16	Sun.	36		0			2v		1v		43				7.0		10.5				
17	Mon.	35	37	3	0	0	2v	1v	1v	0	39	17	4	10	11.0	6.5	9.5	10.5			
18	Tues.	35	36		0	0	2v	1v	1v	0	38	17	4	8		5.0		11.0	12.90	13.25	14.97
19	Wed.	36	36		0	0	1v	1v	0	0		17	4			6.0		11.0			
20	Thurs.	35	36	0	0	0	1v	0	0	0	38	17	3	3	9.5	5.0	11.0	11.0			
21	Fri.	36	36		0	0	1v	0	0	0		17	3	3		5.0		10.5			
22	Sat.																				
23	Sun.													6							
24	Mon.		37			0		1v		0			6	6		4.0		9.5			
25	Tues.	37	37		0	0	2v	1v	1v	0	34	21	6	6		5.0		10.5			
26	Wed.	38	38		0	0	2v	1v	1v	0		23	11	10		5.0		10.5			
27	Thurs.	38	38		0	0	1v	0	0	0	36	25	14	10		4.5		9.5			
28	Fri.	40	40	2	3	0	2v	1v	1v	0	36	25	15	11	10.5	4.5	8.5	10.5			
29	Sat.	43	42	2	0	0	2v	1v	1v	0	36	25	15		12.0	6.5	8.0	10.5	11.89	12.56	12.13
30	Sun.																				
Average.		35	37	2	0	0	2v	1v	1v	0	37	21	9	9	8.7	5.4	10.0	10.7	12.35	12.90	13.55

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CARBON DIOXIDE.			IRON.		BACTERIA PER CUBIC CENTIMETER.									PRESUMPTIVE TEST B. COLI.						COAGULANT.	March 1911	
							FILTER EFFLUENTS.							RIVER.			FILTERED.					
														Gas.			Gas.					
River.	Settled.	Filtered.	River.	Filtered.	River.	Aerator.	1	2	3	4	5	6	Mixed.	1c.c.	5c.c.	L. L. Agar.	1c.c.	5c.c.	L. L. Agar.	GRAINS PER GALLON.	Day.	Date.
2.0			0.25																		Wed.	1
3.0			0.15																		Thurs.	2
3.0			0.20																		Fri.	3
3.0			0.20																		Sat.	4
																					Sun.	5
3.0			0.13																		Mon.	6
																					Tues.	7
3.5			0.25																		Wed.	8
3.0			0.20																		Thurs.	9
2.5			0.12																		Fri.	10
2.5			0.12																		Sat.	11
																					Sun.	12
2.0			0.12																		Mon.	13
3.0			0.20																		Tues.	14
2.0			0.20																		Wed.	15
2.0			0.25																		Thurs.	16
2.0			0.26																		Fri.	17
2.5			0.25																		Sat.	18
																					Sun.	19
2.5			0.20																		Mon.	20
2.5			0.20																		Tues.	21
2.5			0.26																		Wed.	22
6.0			0.45																		Thurs.	23
																					Fri.	24
																					Sat.	25
																					Sun.	26
																					Mon.	27
																					Tues.	28
																					Wed.	29
																					Thurs.	30
2.5	4.0	3.5	0.55	0.30																	Fri.	31
2.8			0.23																		Average.	

April—1911

3.7	7.3		0.30																		Sat.	1
																					Sun.	2
2.5			0.10																		Mon.	3
2.5			0.10																		Tues.	4
2.5			0.12																		Wed.	5
2.5			0.12																		Thurs.	6
2.5			0.12																		Fri.	7
																					Sat.	8
																					Sun.	9
																					Mon.	10
																				1.32	Tues.	11
3.0	8.0	5.5	0.30	0.20	378	294	11	5	31			51	48	—	—	—	—	—	—	1.18	Wed.	12
	6.0	6.0		0.10	287	273	22	38	42			52	21	—	—	—	—	—	—	1.22	Thurs.	13
	8.0	7.5		0.10	427	154	9	11	40			11	18	—	—	—	—	—	—	1.10	Fri.	14
8.5	8.0	7.0	0.45	0.10																0.00	Sat.	15
8.0			0.15																	1.28	Sun.	16
3.0	7.3	5.5	0.20	0.08	175	273	2	13	11	28		25	17	—	—	—	—	—	—	1.03	Mon.	17
	7.5	6.0		0.12	134	54		5	12	12		22	7	—	—	—	—	—	—	0.76	Tues.	18
	7.5	7.0		0.10	63	49		9	14	7		3	12	—	—	—	—	—	—	0.90	Wed.	19
	7.5	7.0		0.10																0.91	Thurs.	20
	6.5	5.5		0.10																0.95	Fri.	21
																				0.97	Sat.	22
																				0.91	Sun.	23
		5.0		0.15																0.69	Mon.	24
	6.0	6.5		0.12	105	63	26	14	13	10	13		16	—	—	—	—	—	—	0.73	Tues.	25
	5.5	6.5		0.10	174	126	33	19	14	62	14		26	—	—	—	—	—	—	0.70	Wed.	26
	6.0	6.5		0.08	294	238	19	24	25	10	13		16	—	—	—	—	—	—	0.00	Thurs.	27
	5.0	6.0	0.20	0.12	252	220	28	28	35	42	21		21	—	—	—	—	—	—	1.18	Fri.	28
	5.0	6.5	0.10	0.08	300	210	33	60	36	24	18		48	—	—	—	—	—	—	0.96	Sat.	29
																				0.91	Sun.	30
2.9	6.7	6.3	0.19	0.11	235	178	20	20	25	24	16	27	28	—	—	—	—	—	—	0.89	Average.	

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Date.	Day.	TEMPERATURE F. River.	TEMPERATURE F. Filtered.	TURBIDITY. River.	TURBIDITY. Settled.	TURBIDITY. Filtered.	ODOR. Hot. River.	ODOR. Hot. Filt'd.	ODOR. Cold. River.	ODOR. Cold. Filt'd.	COLOR. River.	COLOR. Settled.	COLOR. Filtered.	COLOR. City.	ALKALINITY. River.	ALKALINITY. Filtered.	HARDNESS. River.	HARDNESS. Filtered.	OXYGEN DISSOLVED. Settled.	OXYGEN DISSOLVED. Aerator.	OXYGEN DISSOLVED. Filtered.
May 1911																					
1	Mon.										37			14							
2	Tues.	44	44	2		0	2v	1v	1v	0	37		15	13	8.5	4.0		10.5			
3	Wed.	42	44	1	1	0	1v	1v	0	0	40	33	15	14	9.0	8.5	10.5	10.5	11.40	11.49	11.04
4	Thu.	39	43	1	1	0	2v	1v	1v	0	42	31	15	14	11.0	6.0	10.5	10.5			
5	Fri.	39	42	1	1	0	2v	1v	1v	0	45	31	15	12	12.0	7.0	9.0	10.5			
6	Sat.	39	42	0	1	0	2v	1v	1v	0	45	31	15	15	12.0	7.0	9.5	10.5			
7	Sun.																				
8	Mon.	42	42	0	1	0	2v	1v	1v	0	40	28	10	13	10.0	6.0	9.5	10.5			
9	Tues.	42	43	0	1	0	2v	1v	1v	0	40	25	10	12	10.0	7.5	10.0	10.5			
10	Wed.	44	43	0	2	0	2v	1v	1v	0	37	23	8	11	11.0	8.0	10.0	11.0	11.44	11.76	12.18
11	Thurs.	46	45	1	2	0	2v	0	1v	0	35	23	6	10	14.0	5.5	10.5	10.5			
12	Fri.	48	46	0	2	0	2v	1v	1v	0	36	21	6	8	16.5	6.0	10.0	10.5			
13	Sat.	50	48	0	1	0	2v	1v	1v	0	37	21	5	7	15.0	8.0	10.0	10.0			
14	Sun.																				
15	Mon.													5							
16	Tues.	51	51		0	0	2F	1v	1v	0		21	5	5		6.0		10.5			
17	Wed.	51	52	0	0	0	2v	1v	1v	0	38	18	5	4	13.5	8.0	10.5	10.5			
18	Thurs.	51	52	0	1	0	2F	1v	1v	0	38	21	5	3	16.5	6.0	10.0	10.0	9.82	10.17	10.35
19	Fri.	52	54	0	0	0	2F	1v	1v	0	38	23	6	4	17.5	6.5	10.0	10.0			
20	Sat.	53	55	1	1	0	2E	1v	1v	0	60	33	8	6	14.5	7.0	10.5	10.0			
21	Sun.										60										
22	Mon.	55	55	1	1	0	2v	1v	1v	0	60	50	18	11	12.5	5.0	10.5	10.5			
23	Tues.	55	56	1	2	0	2v	1v	1v	0	60	48	20	13	12.5	7.0	10.5	11.0	8.76	9.56	8.85
24	Wed.	55	56	0	2	0	2v	1v	1v	0	60	45	16	16	18.0	8.0	10.5	11.0			
25	Thurs.	53	55	0	1	0	2v	1v	1v	0	60	39	12	16	16.0	7.5	11.0	11.0			
26	Fri.	53	54	0	1	0	2F	1v	1v	0	58	33	8	12	15.0	10.0	10.5	11.5			
27	Sat.	53	53	0	1	0	2v	1v	1v	0	53	43	7	10	15.5	7.5	11.5	12.0			
28	Sun.																				
29	Mon.													6							
30	Tues.													6							
31	Wed.			0		0	2v	1v	1v	0	48		7	4	16.0	8.0	10.5	9.5			
Average.		48	49	1	1	0	2v	1v	1v	0	44	31	10	10	13.5	7.0	10.2	10.6	13.47	14.33	14.13
June—1911																					
1	Thurs.	57	56	0	1	0	2v	1v	1v	0	48	40	12	6	15.5	7.0	10.0	9.5			
2	Fri.	56	57	0	1	0	2v	1v	1v	0	50	43	15	8	19.5	9.5	10.5	10.5	9.15	9.18	8.90
3	Sat.	56	57	0	1	0	2v	1v	1v	0	50	37	16	11	15.5	9.2	11.5	12.0			
4	Sun.																				
5	Mon.	55	56	0	1	0	2F	1E	1v	0	50	24	6	11	17.5	6.0	12.0	12.0	9.36	9.09	9.90
6	Tues.	52	55	0	0	0	2E	1v	1v	0	48	30	7	10	17.5	9.5	11.5	12.5			
7	Wed.	50	53	0	1	0	2F	1v	1v	0	55	30	10	8	14.0	8.0	10.0	12.5			
8	Thurs.	49	52	1	2	0	2F	1E	1v	0	70	35	10	6	15.5	7.0	9.5	12.5			
9	Fri.		50	0	1	0	2F	1E	1v	0	70	40	10	7	22.0	10.0	8.5	12.0			
10	Sat.		53		1	0		0	1v	0		35	10	9		8.0		10.5			
11	Sun.																				
12	Mon.										70		22	15							
13	Tues.			17	5	0	3E	1v	2E	0	70	60	23	16	13.5	6.0	10.5	12.5			
14	Wed.	50	52	12	3	0	3E	1E	1v	0	70	60	22	18	13.0	12.0	10.5	12.5	10.00	9.98	9.42
15	Thurs.	51	51	5	3	0	2E	1v	1v	0	70	55	22	20	13.0	6.0	10.0	12.0			
16	Fri.	52	52	3	3	0	2E	1v	1v	0	70	48	13	20	18.0	6.0	11.0	12.5			
17	Sat.	52	52	0	3	0	2v	1v	1v	0	65	44	11	17	20.0	9.0	11.0	12.5			
18	Sun.												8								
19	Mon.	52	53	0	1	0	2v	1v	1v	0	65	35	6	10	16.5	7.0	10.0	12.5			
20	Tues.	53	52	0	1	0	2v	1v	1v	0	60	34	6	8	15.0	5.5	12.5	12.5			
21	Wed.	54	52	0	1	0	3E	1v	1v	0	60	33	6	5	17.0	5.5	10.5	12.5	9.75	9.73	9.69
22	Thurs.	54	54	0	1	0	2v	1v	1v	0	55	30	6	4	19.5	6.0	11.0	12.5			
23	Fri.	55	55	0	1	0	3v	1v	1v	0	53	36	6	5	15.5	5.5	10.0	12.5			
24	Sat.	55	54	0	1	0	2v	1v	1v	0	50	35	6	5	18.0	5.5	11.0	12.5			
25	Sun.																				
26	Mon.	55	54	0	1	0	3v	1v	1v	0	48	30	6	8	16.5	7.0	11.0	11.0			
27	Tues.	55	55	0	1	0	2v	1v	1v	0	45	30	6	7	15.5	8.0	11.5	12.5	8.83	9.05	8.73
28	Wed.	56	55	0	1	0	2v	1v	1v	0	45	30	5	7	15.0	7.0	11.5	11.5			
29	Thurs.	56	55	0	1	0	3F	1v	1v	0	45	32	5	6	16.0	7.0	10.5	10.5			
30	Fri.	56	56	0	1	0	3v	0	1v	0	45	27	6	5	16.5	8.0	10.5	10.5			
Average.		54	54	1	1	0	2v	1v	1v	0	57	37	10	10	16.5	7.4	10.2	11.4	9.42	9.39	9.33

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May 1911

CARBON DIOXIDE.			IRON.		BACTERIA PER CUBIC CENTIMETER.									PRESUMPTIVE TEST B. COLI.						COAGULANT.		
							Effluent from Filters.							River.			Filtered.					
														Gas.			Gas.					
River.	Settled.	Filtered.	River.	Filtered.	River.	Aerator.	1	2	3	4	5	6	Mixed.	1 c.c.	5 c.c.	L. L. Agar.	1 c.c.	5 c.c.	L. L. Agar.	Grains Per Gallon.	Date.	Day.
		6.0		0.10																0.86	Mon.	1
																				1.19	Tues.	2
4.5	4.5	6.5	0.20	0.15	462	350	16	8	3	4	9		7	—	—	—	—	—	—	1.14	Wed.	3
4.0	4.5	6.5	0.12	0.08	318	402	7	1	6	4	8		8	—	—	—	—	—	—	1.18	Thurs.	4
3.0	5.0	6.0	0.12	0.08	308	308	15	5		4	5		8	—	—	—	—	—	—	1.41	Fri.	5
3.5	5.0	6.0	0.20	0.05	189	280	1	7		4	7		4	—	—	—	—	—	—	1.22	Sat.	6
																				1.24	Sun.	7
3.5	5.0	6.0	0.10	0.05	249	144	1	5	52		8		14	—	—	—	—	—	—	1.20	Mon.	8
3.5	5.0	7.0	0.15	0.05	315	231	3	4	27		9		7	—	—	—	—	—	—	1.14	Tues.	9
3.5	5.5	7.0	0.20	0.12	289	182	7	9	28		7		7	—	—	—	—	—	—	1.15	Wed.	10
3.0	6.0	7.5	0.20	0.12	240	222	11	7	12		4		22	—	—	—	—	—	—	1.43	Thurs.	11
3.5	6.5	7.0	0.15	0.10																1.22	Fri.	12
4.0	7.0	7.5	0.25	0.10	189	144	19	11	11	26	11			—	—	—	—	—	—	1.33	Sat.	13
																				1.44	Sun.	14
																				1.46	Mon.	15
	7.5	8.5		0.10	336	132		5	4	3		29	19							1.37	Tues.	16
4.0	8.0	8.5	0.25	0.10																0.00	Wed.	17
3.5	6.0	7.5	0.25	0.12	398	189		6	3	4	7	26	9	—	—	—	—	—	—	0.00	Thurs.	18
3.0	6.0	8.0	0.25	0.08	114	108		5		10	8	25	8	—	—	—	—	—	—	1.37	Fri.	19
4.0	5.5	7.5	0.30	0.10	L	L		4	2	6	22	33	18	—	—	—	—	—	—	1.16	Sat.	20
																				1.40	Sun.	21
4.5	8.0	9.0	0.30	0.10	217	L			17	8	24	68	22	+	+	—	—	—	—	0.00	Mon.	22
3.0	6.5	8.0	0.25	0.15	504	931			12	11	15	41	22	+	+	—	—	—	—	1.59	Tues.	23
3.5	9.0	9.0	0.30	0.10	301	446			4	5	12	18		—	—	—	—	—	—	1.40	Wed.	24
4.0	9.0	9.0	0.30	0.12	259	161			4	5	12	10	7	—	—	—	—	—	—	1.45	Thurs.	25
3.5	10.0	10.0	0.25	0.08																1.30	Fri.	26
3.5	10.5	10.0	0.25	0.10																1.35	Sat.	27
																				1.39	Sun.	28
																				1.33	Mon.	29
																				1.32	Tues.	30
4.0		9.5	0.15	0.08																0.00	Wed.	31
3.6	6.4	7.7	0.22	0.10	271	249	9	6	13	7	10	31	12	—	—	—	—	—	—	1.16	Average.	

June—1911

4.0	8.5	10.0	0.35	0.18	249	216		16		3	5	5	4	—	—	—	—	—	—	0.00	Thurs.	1
3.5	6.0	10.0	0.30	0.15	553	140		8		3	6	4	2	—	—	—	—	—	—	1.45	Fri.	2
5.5	9.5	9.5	0.30	0.08	357	182		5	18	4	6	5	7	—	—	—	—	—	—	1.38	Sat.	3
																				1.50	Sun.	4
4.5	10.0	10.0	0.25	0.10	210	80	28	3	4		1	3	8	—	—	—	—	—	—	0.00	Mon.	5
4.0	8.5	10.0	0.35	0.10	420	162	18	1	7		3	9	11	—	—	—	—	—	—	1.40	Tues.	6
4.0	9.5	10.0	0.30	0.10	1596	245	9	1	3			7	7	—	—	—	—	—	—	1.51	Wed.	7
4.0	10.0	9.8	0.25	0.10	1092	399	22	5	2			1	14	+	+	—	—	—	—	1.31	Thurs.	8
3.5	9.0	8.5	0.50	0.08																0.00	Fri.	9
	6.0	8.5		0.12			58	12	8	19	56		35	—	—	—	—	—	—	1.27	Sat.	10
																				1.07	Sun.	11
																				1.38	Mon.	12
4.5	10.5	7.5	0.60	0.12	4209	1242	9	1	1	4	3		8	+	+	18rd	—	—	—	1.51	Tues.	13
4.0	9.0	9.0	0.50	0.12	3840	2770	9		6	3	22		17	+	+	20rd	—	—	—	1.48	Wed.	14
3.5	9.0	9.0	0.30	0.10	1183	1390	28	5	8	18	57		19	+	+	—	—	—	—	1.44	Thurs.	15
3.5	9.5	7.5	0.20	0.08	1670	600	4	3	3	8	7		5	+	+	—	—	—	—	1.51	Fri.	16
3.5	8.5	7.5	0.25	0.15	702	420	16	7	3	3	9	74	14	+	+	—	—	—	—	1.41	Sat.	17
																				1.59	Sun.	18
3.5	11.0	9.0	0.25	0.20	800	196	85		2	3	9	25	40	—	—	—	—	—	—	1.47	Mon.	19
4.0	11.0	9.5	0.30	0.12	294	182	4		3	3	4	7	7	—	—	—	—	—	—	1.42	Tues.	20
4.0	8.5	9.5	0.20	0.12	210	120	3		6	2	3	8	9	—	—	—	—	—	—	1.36	Wed.	21
3.5	9.0	9.5	0.25	0.12	224	120	2		1	3	5	4	4	—	—	—	—	—	—	0.00	Thurs.	22
4.0	8.0	9.5	0.25	0.10	210	175	3			6	5	12	4	—	—	—	—	—	—	1.39	Fri.	23
4.2	9.5	10.0	0.25	0.10	231	154	8			5	2	4	2	—	—	—	—	—	—	1.46	Sat.	24
																				1.31	Sun.	25
4.0	9.0	9.5	0.25	0.07	294	182	3		40		1	7	12	—	—	—	—	—	—	1.29	Mon.	26
4.5	9.5	10.5	0.25	0.10	252	203	0		14		3	4	5	—	—	—	—	—	—	1.29	Tues.	27
5.0	10.0	10.5	0.20	0.10	208	105	4		8		2	2	9	—	—	—	—	—	—	1.07	Wed.	28
4.5	9.5	11.0	0.30	0.12	138	120	5		4		7	1	3	—	—	—	—	—	—	0.00	Thurs.	29
3.5	8.5	7.5	0.25	0.08																1.16	Fri.	30
4.0	7.9	6.0	0.32	0.11	837	427	13	6	7	6	10	10	11	—	—	—	—	—	—	1.15	Average.	

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July 1911		TEMPERATURE F.		TURBIDITY.			ODOR.				COLOR.				ALKALINITY.		HARDNESS.		OXYGEN DISSOLVED.		
							Hot.		Cold.												
Date.	Day.	River.	Filtered.	River.	Settled.	Filtered.	River.	Filt'd.	River.	Filt'd.	River.	Settled.	Filtered.	City.	River.	Filtered.	River.	Filtered.	Settled.	Aerator.	Filtered.
1	Sat.	58	57	0	1	0	2v	0	1v	0	45	27	5	10	18.0	9.0	9.5	10.0			
2	Sun.																				
3	Mon.										43		5	5							
4	Tues.																				
5	Wed.										48		5	7							
6	Thurs.	62	62	0	1	0	2v	1v	1v	0	50	25	5	5	13.5	6.0	10.5	11.0			
7	Fri.	60	62	1	0	0	2v	1v	1v	0	55	24	5	4	15.0	7.0	11.5	12.0	8.68	8.81	8.56
8	Sat.	59	60	0	0	0	2v	1v	1v	0	58	30	14		15.5	7.5	10.5	10.5			
9	Sun.																				
10	Mon.	61	61	1	0	0	2F	1v	1v	0	65	32	14	11	19.0	6.5	11.0	11.0			
11	Tues.	64	68	1	0	0	2F	1v	1v	0	55	32	14	12	19.0	8.0	9.5	10.0			
12	Wed.	60	68	1	1	0	3v	1v	1v	0	75	48	20	13	17.5	10.0	11.0	11.0	8.38	8.49	8.04
13	Thurs.	57	60	1	1	0	3v	1v	1v	1v	85	60	36	18	17.5	9.5	10.5	10.5			
14	Fri.	55	59	1	1	0	3v	1v	2v	1v	90	45	28	25	19.5	16.0	12.0	14.5			
15	Sat.	55	57	1	1	0	3v	1v	2v	0	90	48	9	20	13.5	8.5	12.5	13.5			
16	Sun.																				
17	Mon.										85		18	13							
18	Tues.			1	1	0	3v	1v	1v	0	85	55	20	16			11.0	10.5			
19	Wed.	54	54	1	1	0	3v	1v	1v	0	80	55	22	20	21.0	9.0	10.5	11.0			
20	Thurs.	54	54	1	1	0	3v	1v	1v	0	75	55	25	21	15.0	9.5	10.5	10.5	9.14	10.08	9.07
21	Fri.	56	54	1	1	0	3E	1v	1v	0	68	47	21	22	16.5	10.0	10.5	9.5			
22	Sat.	56	54	1	1	0	3E	1v	1v	0	70	47	21	22	16.0	10.0	10.5	10.0			
23	Sun.																				
24	Mon.	53	54	2	1	0	3v	1v	1v	0	90	55	23	22	22.0	7.5	10.5	10.5			
25	Tues.	52	52	2	1	0	3E	1v	2v	0	90	60	25	22	17.5	9.5	10.5	11.0	9.59	9.66	8.85
26	Wed.	52	52	2	1	0	3E	1v	2v	0	85	55	25	22	16.0	11.0	10.5	11.0			
27	Thurs.	52	52	2	1	0	3E	1v	2v	0	80	48	24	20	20.0	9.0	10.0	10.5			
28	Fri.	53	53	2	1	0	3E	1v	1v	0	80	48	12	18	16.5	6.0	12.5	15.0			
29	Sat.	53	52	2	0	0	3v	0	1v	0	70	45	10	17	16.5	5.0	12.0	13.5			
30	Sun.																				
31	Mon.	54	54	1	0	0	3v	0	1v	0	70	43	12	8	14.0	8.5	11.5	16.3			
Average.		56	57	1	1	0	3v	1v	1v	0	71	45	17	16	17.0	8.3	11.0	11.5	8.95	9.26	8.63

August—1911

1	Tues.	55	54	1	0	0	3v	0	1v	0	72	42	10	9	15.5	9.3	44.3	15.6			
2	Wed.	54	53	1	0	0	2v	0	0	0	85	43	12	11	16.4	8.8	12.9	17.4			
3	Thurs.		54		0	0		0		0		45	17	11		10.0		13.8			
4	Fri.	54	56	1		0	3v	1v	1v	0	85		17	15	18.6	9.7	13.3	19.5		r9.01	7.95
5	Sat.	55	58	1		0	3v	0	1v	0	90		45	18	16.5	11.7	13.2	22.7			
6	Sun.																				
7	Mon.	57	56	1		0	3v	1v	1v	0	85		38	37	16.3	12.9	12.8	21.4			
8	Tues.	55	51	1		0	3v	2v	1v	0	105		55	37	17.3	16.4	18.8	19.4			
9	Wed.	51	53	1	0	0	3v	1v	1v	0	110	45	13	62	16.8	14.0	10.3	17.6		11.02	8.19
10	Thurs.	52	53	1	0	0	3v	1v	1v	0	110	42	10	28	16.1	13.9	14.3	27.3			
11	Fri.	51	52	1	0	0	3v	0	0	0	110	37	12	16	16.8	8.9	24.5	22.1			
12	Sat.	50	49	1	0	0	3v	0	1v	0	110	38	10	13	18.9	8.2	22.1	33.8			
13	Sun.												12								
14	Mon.	53	52	0	0	0	3v	1v	1v	0	86	47	12	10	19.9	7.5	13.0	10.0			
15	Tues.	52	51	1	0	0	2v	1v	1v	0	95	45	21	15	15.5	10.0	11.0	11.0	9.51	10.10	9.14
16	Wed.	54	51	18	0	0	2v	1v	1v	0	80	50	26	16	21.0	7.0	9.5	12.0			
17	Thurs.	55	52	15	1	0	3E	1v	2v	0	75	50	22	17	20.0	10.0	10.5	11.0			
18	Fri.	52	52	8	1	0	3v	1v	1v	0	70	50	20	18	15.5	12.0	11.0	10.0			
19	Sat.	51	51	7	1	0	3E	1v	1v	0	70	47	18	17	17.5	8.0	8.0	8.5			
20	Sun.																				
21	Mon.	51	52	5	1	0	3v	1v	2v	0	65	42	18	15	20.0	9.0	12.5	10.5			
22	Tues.	52	52	2	0	0	3v	1v	2v	0	65	40	15	14	22.5	11.0	14.5	13.5			
23	Wed.	51	52	0	0	0	2v	1v	1v	0	58	38	15	14	19.0	7.5	12.0	11.0			
24	Thurs.	52	52	0	0	0	2v	1v	1v	0	50	38	15	13	22.0	10.3	12.5	13.5			
25	Fri.													12							
26	Sat.													12							
27	Sun.																				
28	Mon.													15							
29	Tues.	48	49	0	0	0	3v	0	1v	0	85	53	15	12	14.7	9.7	9.5	21.3			
30	Wed.	47	46	0	0	0	3v	1v	1v	0	88	47	18	8	12.9	8.4	11.7	17.9			
31	Thurs.	47	46	0	0	0	3v	1v	1v	0	96	54	17	10	10.1	7.2	11.9	13.8			
Average.		52	52	2	0	0	3v	1v	1v	0	85	19	18	19	17.4	10.1	13.2	16.4	9.51	10.04	8.43

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CARBON DIOXIDE.			IRON.		BACTERIA PER CUBIC CENTIMETER.										PRESUMPTIVE TEST B. COLI.						COAGULANT.	July 1911	
							FILTER EFFLUENTS.								RIVER.			FILTERED.					
															Gas.			Gas.					
River.	Settled.	Filtered.	River.	Filtered.	River.	Aerator.	1	2	3	4	5	6	Mixed.	1c.c.	5c.c.	L. L. Agar.	1c.c.	5c.c.	L. L. Agar.	GRAINS PER GALLON.	Day.	Date.
4.0	8.0	8.5	0.40	0.08																1.26	Sat.	1
																				1.31	Sun.	2
																				1.26	Mon.	3
																				1.24	Tues.	4
																				1.27	Wed.	5
4.5	7.0	7.5	0.50	0.10	L	L		9	L	12	1	1	12	—	—	—	—	—	—	0.98	Thurs.	6
3.5	9.5	9.5	0.70	0.12	L	L		8	6	3		7	2	—	—	—	—	—	—	0.00	Fri.	7
3.5	7.0	8.5	0.55	0.10	361	259		9	6	4		4	5	—	+†	—	—	—	—	1.17	Sat.	8
																				0.68	Sun.	9
5.0	5.5	7.5	0.65	0.10	L	L	L	2	2	2		0	L	—	—	—	—	—	—	0.29	Mon.	10
4.5	7.0	7.0	0.50	0.12	L	L	L	8	2	3			4	+	+*	—	—	—	—	0.41	Tues.	11
4.5	6.0	7.0	1.00	0.25	588	210	14	12	2	23	3		13	+	++	—	—	—	—	0.40	Wed.	12
5.0	5.0	8.0	1.50	0.30	610	378	13	7	4	2	40		15	+	++	—	—	—	—	1.22	Thurs.	13
5.0	10.0	8.5	1.50	0.25																0.72	Fri.	14
4.5	6.5	7.0	1.50	0.30																0.86	Sat.	15
																				0.51	Sun.	16
																				0.53	Mon.	17
4.0	9.0	5.0	1.55	0.50	488	189	6	10			3	19	14	+	++	—	—	—	—	0.83	Tues.	18
3.0	6.0	8.0	1.55	0.50	343	280	1	7			5	17	7	+	++	—	—	—	—	0.50	Wed.	19
3.5	6.0	7.5	1.20	0.45	462	192	11	10			12	26	10	+	++	—	—	—	—	1.30	Thurs.	20
4.0	6.5	8.0	1.00	0.30	240	240	14	18			7	20	11	+	++	—	—	—	—	0.43	Fri.	21
4.5	7.0	9.0	0.95	0.30	490	208	17	28		38	7	21	14	+	++	—	—	—	—	0.63	Sat.	22
																				0.77	Sun.	23
4.0	6.0	8.5	1.00	0.30	126	98	6			11	10	18	9	—	—	—	—	—	—	0.76	Mon.	24
3.5	7.5	8.0	0.95	0.30	546	306	7			21	4	9	17	+	+	—	—	—	—	1.11	Tues.	25
3.5	6.5	8.0	1.30	0.25	714	525	3			18	4	10	13	—	—	—	—	—	—	1.84	Wed.	26
4.0	6.5	8.0	0.60	0.30	768	420	6			7	3	4	5	+	++	—	—	—	—	1.47	Thurs.	27
4.0	7.0	8.0	0.60	0.10												1 rd			—	1.14	Fri.	28
4.5	7.5	8.0	0.70	0.10	L	211	8			1	28	6	4	—	—	—	—	—	—	1.12	Sat.	29
																				1.85	Sun.	30
5.0	8.5	8.0			L	L		20	12	3	8	15	38	—	—	—	—	—	—	0.97	Mon.	31
4.2	7.1	7.9	0.96	0.24	318	195	8	11	4	11	10	12	10	+	+	—	—	—	—	0.93	Average.	

August—1911

4.6	9.9	10.2			360	143		6	5	4	54	8	L	—	++	—	—	—	—	0.78	Tues.	1
3.5	8.1	9.5				154		5	8	10	4	10	14	—	—	—	—	—	—	0.84	Wed.	2
	7.0	7.5				62		3	15	2		4	5				—	—	—	0.00	Thurs.	3
4.8		8.6			182			41	64	71		54	84	—	—	—	—	—	—	0.00	Fri.	4
4.9		8.3			36			2	6	39		68	3	—	—	2 rd	—	—	—	0.00	Sat.	5
																				2.02	Sun.	6
5.8		8.0			L		21	2	4	59		5	30	—	—	—	—	—	—	1.49	Mon.	7
7.7		9.4			L		3	2	5	2			5	—	—	—	—	—	—	1.80	Tues.	8
7.4	13.0	10.1												—	+	—	—	—	—	1.07	Wed.	9
5.8	10.8	8.1												—	—	—	—	—	—	1.20	Thurs.	10
5.2	12.3	10.8			339	222	98	108	1		6		61	—	+	—	—	—	—	1.18	Fri.	11
4.4	7.0	8.3			288	188	11	18	33		4		2	+	+	—	—	+	—	0.88	Sat.	12
																				0.69	Sun.	13
5.3	9.7	10.2			105	175	17		2		294	210	16	—	+	—	—	—	—	0.72	Mon.	14
3.5	6.5	10.0	1.60	0.25	216	402	L		L		22	L	L	—	+	—	—	—	—	0.74	Tues.	15
3.5	6.0	8.0	1.40	0.40	L	L	27		L		75	L	L	—	+	—	—	—	—	0.74	Wed.	16
3.0	6.0	8.0	1.00	0.30	L	L	L		L	L	L	L	L	+	+	—	—	+	—	0.74	Thurs.	17
4.0	7.5	9.0	0.60	0.15	1400	980	12		3	90	21	44	24	—	+	—	—	+	—	0.82	Fri.	18
3.5	7.5	8.5	0.50	0.15	882	696	4			95	11	20	25	+	+	—	—	—	—	0.77	Sat.	19
																				0.77	Sun.	20
4.0	7.0	8.5	0.35	0.12	322	490	98			68		7	20	+	++	—	—	—	—	1.28	Mon.	21
3.5	6.5	8.0	0.40	0.10	280	322		108		40	22	21		—	++	—	—	—	—	0.95	Tues.	22
4.0	5.5	8.0	0.30	0.10																0.78	Wed.	23
3.5	5.5	7.5	0.30	0.15																0.47	Thurs.	24
																				0.54	Fri.	25
																				0.95	Sat.	26
																				0.99	Sun.	27
																				0.99	Mon.	28
5.2	9.3	10.7			240	132		8	11	0	0	1	3	—	—	—	—	—	—	1.32	Tues.	29
5.0	6.7	12.3			316	194		1	1	3	0	1	4	—	—	—	—	—	—	0.54	Wed.	30
7.3	10.2	13.4			187	206		4	4	0	0	0	1	+	+	—	—	—	—	0.52	Thurs.	31
4.8	8.1	9.2	0.72	0.19	285	273	27	23	10	32	37	26	16	—	—	—	—	—	—	0.86	Average.	

*Under B. Coli.=Filtered sample found positive on confirmation test.
†Under B. Coli.=Indicates negative confirmation test.

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September 1911		TEMPERATURE F.		TURBIDITY.			ODOR.				COLOR.				ALKALINITY.		HARDNESS.		OXYGEN DISSOLVED.		
							Hot.		Cold.												
Date.	Day.	River.	Filtered.	River.	Settled.	Filtered.	River.	Fil'd.	River.	Fil'd.	River.	Settled.	Filtered.	City.	River.	Filtered.	River.	Filtered.	Settled.	Aerator.	Filtered.
1	Fri.	49	48	1	0	0	3v	1v	2v	0	90	56	22	11	8.6	7.7	12.3	14.4			
2	Sat.	47	46	0	0	0	2v	0	1v	0	86	56	23	12	12.5	9.1	12.4	16.6			
3	Sun.																				
4	Mon.	49	47	0	0	0	3v	1v	1v	0	94	52	12				9.5	14.3			
5	Tues.	48	46	0	0	0	3v	1v	1v	0	92	63	18	13	12.7	8.3	10.5	15.5			
6	Wed.	49	48	0	0	0	2v	0	0	0	87	56	23	12	12.4	8.5	14.1	14.2			
7	Thurs.	50	47	0	0	0	3v	1v	2v	0	95	58	22	16	14.1	8.9	10.8	12.9			
8	Fri.	49	47	0	0	0	3v	1v	1v	0	76	55	22	16	14.9	8.9	11.6	14.0			
9	Sat.	46	47	0	0	0	2v	0	1v	0	82	58	27	17	14.2	9.1	11.1	13.5			
10	Sun.																				
11	Mon	47	46	0	0	0	3v	1v	2v	0	76	47	17	17	9.3	8.7	12.1	15.7			
12	Tues.	46	46	0	0	0	3v	1v	1v	0	68	53	13	14	13.1	7.2	10.3	25.6			
13	Wed.	45	44	0	0	0	3v	1v	1v	0	66	44	17	10	10.6	8.1	11.2	27.8			
14	Thurs.	43	43	0	0	0	3v	1v	1v	0	78	54	18	10	11.7	8.2					
15	Fri.	41	42	0	0	0	3v	1v	1v	0	84	57	18	9	13.8	9.3	14.6	15.7			
16	Sat.	43	43	0	0	0	2v	1v	0	0	68	56	20	10	13.0	7.7	10.0	14.3			
17	Sun.																				
18	Mon.													17							
19	Tues.	44	43	0	0	0	3v	0	1v	0	57	38	15	17	12.7	8.1	9.4	13.2			
20	Wed.	45	43	0	0	0	3v	1v	1v	0	64	45	16	11	15.0	7.8	10.8	11.3			
21	Thurs.	45	43	0	0	0	3v	1v	1v	0	58	47	21	10	13.2	7.3	21.2	29.4			
22	Fri.	46	44	0	0	0	2v	0	1v	0	54	45	22	10	16.0	8.6	12.7	14.6			
23	Sat.	45	44	0	0	0	3v	1v	1v	0	55	47	25	16	12.8	8.0	11.1	13.0			
24	Sun.																				
25	Mon.	46	45	0	0	0	3v	1v	1v	0	54	46	23	14	13 1	8.7	10.7	12.7			
26	Tues.	47	47	0	0	0	2v	1v	0	0	52	44	22	16	14.6	9.8	10.8	13.6			
27	Wed.	44	44	0	0	0	2v	1v	0	0	58	45	23	16	15.3	10.0	12.4	12.5			
28	Thurs.	45	45	0	0	0	2v	2v	0	0	56	47	27	16	14.9	11.1	11.9	14.0			
29	Fri.	43	43	0	0	0	3v	2v	1v	0	58	50	22	18	14.7	14.1	12.1	12.5			
30	Sat.	39	42	0	0	0	3v	1v	2v	0	58	51	34	18	14.2	11.6	12.2	12.6			
Average.		46	45	0	0	0	3v	1v	1v	0	71	51	21	14	13.2	8.9	11.8	15.6			

October — 1911																					
1	Sun.																				
2	Mon.			5	1	0	3v	1v	1v	0	64	52	27	18	10.8	7.8	10.9	14.8			
3	Tues.	41	40	1	0	0	3v	1v	2v	0	66	55	27	22	13.6	11.8	10.7	14.7			
4	Wed.	38	37	1	0	0	2v	1v	1v	0	68	57	28	19	13.0	10.2	11.1	12.6			
5	Thurs.	43	39	0	0	0	2v	1v	2v	0	68	58	28	18	13.4	12.1	10.3	13.2			
6	Fri.	43	37	0	0	0	2v	0	1v	0	60	56	28	18	14.9	10.3	9.8	11.9			
7	Sat.	38	36	0	0	0	3v	0	1v	0	66	57	26	22	12.3	10.6	11.0	11.9			
8	Sun.																				
9	Mon.			0	0	0	2v	1v	1v	0	56	50	22	24	11.6	8.5	9.5	10.6			
10	Tues.	35	35	0	0	0	2v	0	1v	0	56	50	18	17	11.7	9.2	10.4	12.7			
11	Wed.	36	33	0	0	0	2v	1v	0	0	58	55	21	14	10.9	8.3	10.3	13.9			
12	Thurs.	36	35	0	0	0	2v	1v	1v	0	52	48	21		11.8	8.0	10.5	11.1			
13	Fri.	37	35	0	0	0	2v	0	1v	0	54	48	22	11	12.5	7.6	10.0	11.2			
14	Sat.	36	34	0	0	0	2v	0	1v	0	54	47	22	12	12.9	8.6	10.8	11.6			
15	Sun.																				
16	Mon.			0	0	0	2v	0	1v	0	48	44	22	12	15.2	8.9	10.7	11.9			
17	Tues.	37	34	0	0	0	2v	1v	1v	0	47	45	22	12	15.4	9.3	10.6	12.4			
18	Wed.	39	37	0	0	0	2v	1v	1v	0	46	45	22	13	14.8	9.3	9.8	13.8			
19	Thurs.	38	35	1500	0	0	3E	0	1E	0		46	23	13		10.0	8.3	12.7			
20	Fri.	40	37	1500				1E		0			26	12		10.0		11.4			
21	Sat.	37	36	1500			3E	1E	1E	0			27	15	14.6	11.4	9.1	10.8			
22	Sun.																				
23	Mon.	41	39	25	18	0	2E	0	1E	0	85	70	13	12	10.3	7.6	7.1	13.2			
24	Tues.	40	40	10	14	0	2E	1v	1E	0	85	60	17	8	10.8	7.9	7.1	11.4			
25	Wed.			5	12	0	2v	1v	1v	0	70	65	17	8	11.4	7.3	6.3	9.9			
26	Thurs.			3	7	0	3v	1v	1E	0	58	55	13	11	10.4	6.4	6.5	9.4			
27	Fri.			1	6	0	3v	1v	1v	0	56	48	16	11	8.9	5.2	6.3	9.1			
28	Sat.			1	6	0	3v	1v	1v	0	52	42	17	9	9.4	6.3	6 1	8.7			
29	Sun.																				
30	Mon.			1	7	0					48	39	16	8							
31	Tues.			2	6	0	2v	1v	1v	0	49	42	17	9	9.5	5.0	6.3	7.9			
Average.		38	36	175	3	0	2v	1v	1v	0	59	51	21	14	12.2	8.7	9.1	11.7			

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CARBON DIOXIDE.			IRON.		BACTERIA PER CUBIC CENTIMETER.									PRESUMPTIVE TEST B. COLI.						COAGULANT.	Septem 191
							FILTER EFFLUENTS.							RIVER.			FILTERED.				
														Gas.			Gas.				
River.	Settled.	Filtered.	River.	Filtered.	River.	Aerator.	1	2	3	4	5	6	Mixed.	1c.c.	5c.c.	L. L. Agar.	1c.c.	5c.c.	L. L. Agar.	GRAINS PER GALLON.	Day.
7.2	8.8	11.5			L	L		1	46	L	L	L	L	+	+	—	—	—	—	0.37	Fri.
7.9	11.4	13.0			L	L		3	4	1	3	2	3	+	+	—	—	—	—	1.60	Sat.
																				1.55	Sun.
8.4	11.6	13.4			302	208		6	5	2	28	0	5	+	+	—	—	—	—	0.96	Mon.
8.6	13.2	13.5			159	206		4	7	3		1	4	+	+	—	—	—	—	1.08	Tues.
9.4	13.0	14.0			98	109		3	7	0		2	1	—	—	—	—	—	—	1.03	Wed.
7.7	11.2	13.4			191	139		8	5	1		2	3							0.98	Thurs.
9.5	13.1	13.6			141	128		27	11	6			9	—	—	—	—	—	—	0 75	Fri.
7.9	14 1	12.4			763	436		1	5	5	124		22	—	—	—	—	—	—	1.40	Sat.
																				1.50	Sun.
6.9	14.7	14.2			1386	463		2	2	1	18		9	—	+		—	—		1.21	Mon.
8.7	11.8	12.5			872	546		0	3	3	12		8	+	+		—	—		0.69	Tues.
7.2	10.4	10.6			892	371		0	4		3	128	22	+	+		—	—		0.99	Wed.
8.1	10.5	10.3			294	288		2	2		7	39	6	—	+		—	—		0.87	Thurs.
9.6	14.3	13.0			L	L			29	L	63	72	19	—	+		—	—		1.06	Fri.
8.1	12.5	12.7			L	L			24	41	28	34	22	—	+		—	—		1.07	Sat.
																				1.42	Sun.
																				1.21	Mon.
8.2	13.6	12.2			L	147			4	16	20	11	21	+	+	—	—	—	—	0.80	Tues.
7.2	10.6	12.5			230	127		88	2	11	3		16	+	+	—	—	—	—	0.76	Wed.
8.1	11.1	12.4			151	107		47	1	11	4	8	6	—	—	—	—	—	—	0.60	Thurs.
9.1	11.6	14.0			173	L		102		26	19	20	40	—	—	—	—	—	—	0.56	Fri.
7.3	11.8	14.0			190	145		19		5	4	4	8	—	—	—	—	—	—	0.95	Sat.
																				1.16	Sun.
8.8	13.9	14.7			156	95		22		7	7	6	29	—	+	—	—	—	—	0.73	Mon.
8.6	11.7	12.8			149	97		12		2	5	3	14	—	—	—	—	—	—	0.00	Tues.
9.4	11.6	11.7			438	246		107			64	5	3	+	+	—	—	—	—	0.00	Wed.
9.1	11.0	13.7			223	117		6		4	7	4	55							0.00	Thurs.
9.4	9.5	14.0			217	186		11		16	8	9	14			—			—	0.62	Fri.
9.6	10.7	13.3			864	244		5		8			4			—			—	1.40	Sat.
8.4	11.9	12.9			276	174		21		9	8	21	18	14	—	+	—	—	—	—	0.88	Averag

October—1

																				0.87	Sun.
9.7	13.0	14.4																		0.75	Mon.
9.3	11.2	12.8			352	282	39	12			15	4	3	11	+	+	—	—	—	—	0.94	Tues.
8.5	10.3	11.7			382	391	41	3			6	4	6	5	+	—	—	—	—	—	0.91	Wed.
8.4	11.3	14.1			357	296	38	4			6	1	4	9	+	+	—	—	—	—	1.04	Thurs.
8.8	12.2	12.5			L	L	47	19			16	17	8	14	—	+	—	—	+	—	1.06	Fri.
9.6	11.3	12.3			212	312	31	6			9	3	1	6	—	+	—	—	—	—	1.11	Sat.
																				1.26	Sun.
9.4	13.2	14.6			143	149	18	2			5		4	4	—	+	—	—	—	—	0.74	Mon.
8.1	12.6	13.8			124	158	15	4		28	1		6	9	—	+	—	—	—	—	0.87	Tues.
7.9	14.2	14.6			214	246	19	1		47	8		4	11	+	—	—	—	—	—	0.77	Wed.
12.3	14.1	14.4			109	152	7	8		41	9		6	14	—	+	—	—	—	—	0.77	Thurs.
11.3	13.1	14.2			162	143	5	1		21	5			6	—	—	—	—	—	—	0.79	Fri.
10.8	11.0	12.8			137	98	8	2		11	9			2	—	—	—	—	—	—	0.79	Sat.
																				0.68	Sun.
9.6	12.8	13.9			132	135	11	3		19	4			8	—	—	—	—	—	—	0.53	Mon.
8.4	12.4	12.6			146	133	7	4		20	9	15		11	+	—	—	—	—	—	0.43	Tues.
9.0	12.2	13.2			123	127	5	6		17		33		4	—	+	—	—	—	—	0.86	Wed.
9.4	11.8	13.8			938	640	6	4		49		34		18	+	+	—	—	—	—	1.48	Thurs.
	11.0	12.6			1784	1156	12	3		29		27		25	+	+	—	—	+	—	0.00	Fri.
10.9	14.0	14.0			L	794	34	12		67		49		27	+	+	—	—	+	—	1.36	Sat.
																				0.81	Sun.
9.2	18.3	16.4			432	202	2	3		4		13	10	11	+	+	—	—	—	—	0.82	Mon.
9.1	17.1	14.2			L	L	2	0		7		8	43	2	+	+	—	—	—	—	1.04	Tues.
9.2	15.2	14.0			237	216	1			3		4	31	20	+	+	—	—	—	—	1.02	Wed.
8.9	13.3	12.6			362	293	2			2		2	7	3	—	+	—	—	+	—	0.64	Thurs.
8.6	11.3	12.2			L	L	16			6		14	28	38	—	—	—	—	—	—	0.63	Fri.
9.0	12.0	12.5			L	L	6			7		11	8	6	—	+	—	—	—	—	0.66	Sat.
																				0.64	Sun.
					174	136			47	1		4	5	26	—	+	—	—	—	—	0.63	Mon.
4.0	4.5	7.0			113	L			18	2	160	1	2	25	—	+	—	—	—	—	0.70	Tues.
9.1	12.5	13.2			265	242	16	7		20	19	14	10	13	+	+	—	—	—	—	0.81	Averag

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November 1911		TEMPERATURE F.		TURBIDITY.			ODOR.				COLOR.				ALKALINITY.		HARDNESS.		OXYGEN DISSOLVED.		
							Hot.		Cold.												
Date.	Day.	River.	Filtered.	River.	Settled.	Filtered.	River.	Filt'd.	River.	Filt'd.	River.	Settled.	Filtered.	City.	River.	Filtered.	River.	Filtered.	Settled.	Aerator.	Filtered.
1	Wed.			1	6	0	2v	0	1v	0	48	41	16	9	10.0	4.0	9.5	9.5			
2	Thurs.			2	7	0	2v	0	1v	0	48	41	16	10	9.5	4.0	9.5	9.5			
3	Fri.			2	6	0	3v	1v	0	0	48	41	18	11	10.0	4.0	11.1	10.3			
4	Sat.			1	6	0	3v	1v	0	0	48	42	22	14	10.5	4.5	9.5	11.1			
5	Sun.																				
6	Mon.			1	6	0	2v	0	0	0	47	33	21	16	10.5	7.0	7.9	9.5			
7	Tues.			0	6	0	3v	1v	0	0	46	29	21	17	12.0	5.5	8.7	10.3			
8	Wed.			0	6	0	3v	1v	0	0	51	39	21	17	10.5	6.0	7.9	7.9			
9	Thurs.			1	7	0	3v	1v	0	0	54	28	21	14	9.0	5.0	9.5	9.5			
10	Fri.			0	6	0	2v	0	0	0	52	28	19	12	10.0	4.0	7.1	8.3			
11	Sat.			0	6	0	2v	0	0	0	52	27	18	13	10.0	4.0	9.5	9.5			
12	Sun.																				
13	Mon.													12							
14	Tues.													17							
15	Wed.													16							
16	Thurs.			1	6	0	3v	1v	0	0	54	42	24	17	11.0	5.5	11.9	11.1			
17	Fri.	38		0	5	0	2v	0	0	0	53	43	28	17	8.5	5.0	7.9	12.7			
18	Sat.	38		0	6	0	2v	0	0	0	49	37	18	17	7.5	3.5	9.5	11.1			
19	Sun.	37		0	6	0					47	36	16								
20	Mon.	38		0	7	0	2v	0	0	0	46	33	17	13	8.0	4.5	6.3	9.5			
21	Tues.	37		0	6	0	2v	0	0	0	47	24	16	15	8.0	4.0	9.5	11.9			
22	Wed.	37		0	5	0	2v	0	0	0	46	25	11	15	8.0	4.0	7.9	11.1			
23	Thurs.	36		0	6	0	1v	0	0	0	46	36	11	12	8.5	3.5	10.3	11.1			
24	Fri.	36		0	6	0	2v	0	0	0	47	23	11	12	8.0	4.0	8.7	8.7			
25	Sat.	38		0	5	0	1v	0	0	0	45	19	9	12	7.5	3.5	7.1	7.9			
26	Sun.			0		0	1v	0	0	0	46	16	9								
27	Mon.			0	4	0	1v	0	0	0	44	22	8	11	8.0	3.0	9.5	11.9			
28	Tues.			0	5	0	1v	0	0	0	45	22	7	10	7.5	3.5	9.5	11.1			
29	Wed.			0	6	0	1v	0	0	0	45	27	8	8	8.0	3.5	10.3	11.1			
30	Thurs.			0	5	0	1v	0	0	0	44	32	11		8.0	4.0	7.9	9.5			
Average.		37		0	6	0	2v	0	0	0	48	31	16	13	9.1	4.3	9.0	10.0			

December—1911																					
1	Fri.	39	38	0	5	0	1v	0	0	0	47	27	8	8	8.0	3.5	9.5	12.7			
2	Sat.	40	38	0	5	0	1v	0	0	0	33	33	10	9	8.0	3.5	8.7	9.5			
3	Sun.	39	38								29	33	10								
4	Mon.	38	37	0	5	0	1v	0	0	0	30	37	10	11	8.5	4.0	9.5	9.5			
5	Tues.	38	37	0	5	0	1v	0	0	0	27	34	16	12	9.0	6.0	9.5	9.5			
6	Wed.	38	37	0	5	0	1v	0	0	0	27	30	16	13	9.0	6.0	9.5	9.5			
7	Thurs.	39	38	0	3	0	1v	0	0	0	26	30	16	16	9.0	6.0	9.5	9.5			
8	Fri.	38	37	0	0	0	1v	0	0	0	25	27	17	16	9.0	7.0	9.5	9.5			
9	Sat.	38	36	0	0	0	1v	0	0	0	26	27	18	17	8.0	7.0	9.5	9.5			
10	Sun.	38	36	0	0	0							21								
11	Mon.	40	36	0	0	0	0	0	0	0	27	27	21	18	7.5	6.0	9.5	9.5	14.2	14.8	13.4
12	Tues.	42	37	0	0	0	0	0	0	0	25	26	19	18	7.5	6.0	9.5	9.5	13.7	14.0	14.2
13	Wed.	42	38	0	0	0	0	0	0	0	27	26	18	18	7.5	6.0	9.5	9.5	12.8	13.7	13.2
14	Thurs.	42	39	0	0	0	0	0	0	0	27	27	19	18	7.5	7.5	9.5	9.5			
15	Fri.	41	39	0	0	0	0	0	0	0	27	26	19	21	8.0	7.5	9.5	9.5	9.5	10.6	11.2
16	Sat.	40	38	0	0	0	0	0	0	0	27	27	18		8.0	8.0	9.5	9.5	11.9	12.5	12.5
17	Sun.																				
18	Mon.	41	39	0	0	0	1v	0	0	0	37	27	22	22	7.5	8.0	8.7	9.5			
19	Tues.	40	39	0	0	0	1v	0	0	0	36	27	18	21	7.5	8.0	9.5	9.5			
20	Wed.	38	36	0	0	0	1v	0	0	0	38	27	17	20	7.5	7.5	11.1	9.5	11.8	11.1	12.7
21	Thurs.	40	39	0	2	0	1v	0	0	0	37	28	18	20	7.0	5.5	11.1	11.1			
22	Fri.	40	38	0	3	0	1v	0	0	0	37	34	17	20	6.5	5.0	11.1	11.1			
23	Sat.	39	38	0	5	0	1v	0	0	0	37	29	17	20	7.0	5.0	11.1	9.5			
24	Sun.	38	37	7	5	0					33	24	18								
25	Mon.	41	38	6	7	0					27		15								
26	Tues.	38	38	0	6	0	0	0	0	0	28	28	17	18	6.0	5.0	7.9	7.9			
27	Wed.	40	36	0	0	0	0	0	0	0	27	27	18	17	7.0	5.0	9.5	8.7	12.6	13.6	13.3
28	Thurs.	39	37	12	4	0	1E	0	0	0	33	28	18	17	6.5	6.0	11.1	7.9			
29	Fri.	39	37	8	3	0	1E	0	0	0	32	28	18	21	6.5	6.0	7.9	7.9			
30	Sat.	38	36	0	5	0	1v	0	0	0	33	27	17	20	7.0	5.5	11.9	9.5			
31	Sun.	38	36								33		18								
Average.		39	37	1	2	0	1v	0	0	0	31	28	17	17	7.6	6.0	9.7	9.5	12.3	12.9	12.9

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CARBON DIOXIDE.			IRON.		BACTERIA PER CUBIC CENTIMETER.									PRESUMPTIVE TEST B. COLI.						COAGULANT.	November 1911	
							FILTER EFFLUENTS.							RIVER.			FILTERED.					
														Gas.			Gas.					
River.	Settled.	Filtered.	River.	Filtered.	River.	Aerator.	1	2	3	4	5	6	Mixed.	1c.c.	5c.c.	L.L. Agar.	1c.c.	5c.c.	L.L. Agar.	GRAINS PER GALLON.	Day.	Date.
4.0	5.0	5.0			222	179		26		108	3	7	22	—	+	—	—	—	—	0.42	Wed.	1
4.0	7.0	6.0			273	231	14	54		83	7	9	31	—	++	—	—	—	—	0.44	Thurs.	2
4.0	5.0	4.5			316	266	24	39		82		12	45	—	+	—	—	—	—	0.43	Fri.	3
3.5	4.5	4.5			251	216	19	18	22	55		11	22	—	—	—	—	—	—	0.42	Sat.	4
																				0.55	Sun.	5
4.0	7.0	8.0			310	266	47	30	33	64		40	55	—	+	—	—	—	—	0.57	Mon.	6
4.0	6.0	5.0			261	219	37	17	20	36		8	27	—	++	—	—	—	—	0.61	Tues.	7
4.0	5.0	5.5			362	344	31	17	15	34		21	30	—	+	—	—	—	—	0.63	Wed.	8
4.0	5.0	6.0			L	300	38	L	29	27		35	35	—	—	—	—	—	—	0.59	Thurs.	9
3.0	8.0	4.5			L	L	15	16	26	27		33	48	—	+	—	—	—	—	0.54	Fri.	10
3.0	5.0	6.0			L	231	34	22	31	42		30	43	—	—	—	—	—	—	0.53	Sat.	11
																				0.63	Sun.	12
																				0.78	Mon.	13
																				0.65	Tues.	14
																				0.59	Wed.	15
2.0	3.5	2.5			344	240	33	10	33	34	35		23	—	+	—	—	—	—	0.61	Thurs.	16
3.0	3.0	2.0			262	170	8	11	19	40	51		24	—	—	—	—	—	—	0.62	Fri.	17
2.5	3.0	4.0			520	240	35	14	17	63	52		22	+	+	—	—	—	—	0.48	Sat.	18
																				0.46	Sun.	19
3.0	3.0	2.5			410	340	13	16	20	19	60		33	—	—	—	—	—	—	0.54	Mon.	20
3.0	3.0	2.0			257	410	10	12	27	31	65		41	—	+	—	—	—	—	0.51	Tues.	21
2.5	3.0	3.5			L	360	22	10	15	40	54		32	—	+	—	—	—	—	0.52	Wed.	22
2.0	3.0	3.0			L	L		16	26	72	63		52	—	+	—	—	—	—	0.60	Thurs.	23
2.5	3.5	3.0			210	266		24	28	56	54		48	—	+	—	—	—	—	0.57	Fri.	24
2.5	4.5	3.0			374	202		17	9	31	44		19	+	+	—	—	—	—	0.58	Sat.	25
																				0.52	Sun.	26
3.0	3.0	3.0			200	194		19	181	37	15		28	—	+	—	—	—	—	0.53	Mon.	27
2.5	3.5	2.5			200	187		18	111	35	18		26	—	—	—	—	—	—	0.59	Tues.	28
3.0	2.5	2.5			185	167	93	8		14	19		27	—	+	—	—	—	—	0.57	Wed.	29
2.5	3.0	3.0			218	152	22	10		18	25		15	—	—	—	—	—	—	0.48	Thurs.	30
3.1	4.3	4.0			225	225	27	18	37	45	38	21	33	—	+	—	—	—	—	0.55	Average.	

December—1911

2.5	3.0	2.5			157	140	23	4		12	30	154	34	—	—	—	—	—	—	0.44	Fri.	1
2.5	3.0	2.5			115	109	12	29		11	19	74	38	—	—	—	—	—	—	0.13	Sat.	2
																				0.00	Sun.	3
2.5	2.5	2.5			158	138	37		23	10	16	288	58	—	—	—	—	—	—	0.00	Mon.	4
1.5	2.5	2.5			148	124	21		18	24	18	81	31	—	—	—	—	—	—	0.00	Tues.	5
2.0	3.0	2.5			132	L	10		19	28	35	28	21	—	—	—	—	—	—	0.00	Wed.	6
2.0	3.0	3.0			150	125	12		17	23	24	26	19	—	+	—	—	—	—	0.00	Thurs.	7
2.5	2.0	2.0			145	120	11		16	22	27	29	21	—	—	—	—	—	—	0.00	Fri.	8
2.5	2.0	3.0			160	140	13		15	25	22	30	18	—	—	—	—	—	—	0.00	Sat.	9
																				0.00	Sun.	10
1.5	2.0	2.0	0.20	0.20	171	156	24	44	33		98	62	30	—	—	—	—	—	—	0.00	Mon.	11
2.0	2.5	2.5			154	185	22	34	57		118	40	29	—	—	—	—	—	—	0.00	Tues.	12
2.0	2.5	2.5			160	167	19	42	28		25	55	28	—	—	—	—	—	—	0.00	Wed.	13
2.5	2.5	2.5			162	180	23	35	43		49	44	24	—	—	—	—	—	—	0.00	Thurs.	14
2.0	2.0	2.0			229	347	20	33	24		23	44	24	—	—	—	—	—	—	0.00	Fri.	15
2.0	2.0	2.0			238	219	30	42	28		24	62	28	—	—	—	—	—	—	0.00	Sat.	16
																				0.00	Sun.	17
2.5	2.5	2.0			335	266	14	35	46		35	19	26	—	—	—	—	—	—	0.34	Mon.	18
2.0	2.0	2.0			304	297	18	32	35		50	25	30	—	+	—	—	—	—	0.33	Tues.	19
2.0	2.5	1.5			244	200	23	94	111		136	71	93	—	—	—	—	—	—	0.31	Wed.	20
1.5	2.0	1.5			245	212	45	102	105		39	37	130	—	—	—	—	—	—	0.29	Thurs.	21
2.5	2.5	1.5			192	228	16	47	20		15	35	62	—	—	—	—	—	—	0.32	Fri.	22
2.0	2.0	1.5			L	171	30	50	37		24	76	39	—	—	—	—	—	—	0.30	Sat.	23
																				0.26	Sun.	24
																				0.00	Mon.	25
2.0	2.0	1.5			325	278	41	70	41		122	112	64	—	—	—	—	—	—	0.00	Tues.	26
2.0	2.0	1.5			178	292		64	25		23	43	33	—	—	—	—	—	—	0.00	Wed.	27
2.0	1.5	2.0			562	455		57	37		143	61	58	—	—	—	—	—	—	0.24	Thurs.	28
1.5	2.0	1.5			239	339		57	18		18	63	27	—	—	—	—	—	—	0.24	Fri.	29
1.5	1.5	1.5			186	366	155	54	50		55	55	50	—	+	+2	—	—	—	0.18	Sat.	30
																				0.20	Sun.	31
2.1	2.3	2.1	0.20	0.20	208	210	31	49	37	19	47	66	41	—	—	—	—	—	—	0.11	Average.	

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APPENDIX XVIII.

MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF WESTFIELD LITTLE RIVER, Springfield, 1911. (Parts in 100,000.)

BORDEN BROOK RESERVOIR—Inlet.

NO.	DATE.		APPEARANCE.		ODOR.			RESIDUE.			AMMONIA.				Chlorine.	NITROGEN.		Oxygen Consumed.	Hardness.	Iron.
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid. Total	Albuminoid. Solution.	Albuminoid. Susp.		As Nitrates.	As Nitrites.			
90347	Jan. 11	Jan. 16	None	V. Slt.	.80	F. Veg.	Dis. Veg.	3.70	1.75	1.95	.0018	.0186	.0178	.0008	.16	.0040	.0001	.68	1.6	.0150
90860	Feb. 9	Feb. 13	V. Slt.	Slight	.51	F. Veg.	D.Vg. F.unpl.	4.70	1.65	3.05	.0044	.0124	.0110	.0014	.19	.0070	.0000	.72	1.7	.0090
91248	Feb. 7	Feb. 9	None	V. Slt.	.72	Dis. Veg.	Dec. Veg.	5.15	2.25	2.90	.0062	.0166	.0158	.0008	.17	.0090	.0000	1.11	1.7	.0120
91843	April 8	April 10	V. Slt.	Slight	.49	F. Veg.	Dis. Veg.	2.55	1.05	1.50	.0036	.0156	.0120	.0036	.08	.0010	.0000	.67	0.5	.0030
92356	May 5	May 8	None	V. Slt.	1.00	V. F. Veg.	V. F. Veg.	4.30	2.55	1.75	.0024	.0272	.0216	.0056	.16	.0010	.0001	1.22	0.8	.0140
92979	June 9	June 12	None	V. Slt.	1.95	Dis. Veg.	Dis. Veg.	6.35	3.30	3.05	.0056	.0340	.0324	.0016	.10	.0010	.0000	2.16	1.4	.0220
93633	July 10	July 11	V. Slt.	V. Slt.	.70	Dis. Veg.	Dec. Veg.	5.05	2.25	2.80	.0080	.0260	.0228	.0032	.19	.0000	.0001	.78	2.1	.0350
94157	July 30	Aug. 1	V. Slt.	V. Slt.	1.14	V. F. Veg.	F. Veg.	5.45	2.80	2.65	.0032	.0272	.0264	.0008	.11	.0000	.0001	1.52	1.7	.0150
94996	Sept. 7	Sept 8	None	V. Slt.	1.30	F. Veg.	D. Veg. w'dy	5.65	3.00	2.65	.0032	.0344	.0308	.0036	.12	.0000	.0000	1.70	2.0	.0100
95625	Oct. 6	Oct. 9	V. Slt.	V. Slt.	1.24	Dis. Veg.	Dec. Veg.	6.35	4.20	2.15	.0032	.0276	.0236	.0040	.14	.0000	.0000	1.56	1.3	.0170
96196	Nov. 2	Nov. 3	None	V. Slt.	.84	Dis. Veg.	Dec. Veg.	3.65	1.50	2.15	.0014	.0156	.0152	.0004	.16	.0010	.0000	1.04	1.3	.0350
96852	Dec. 4	Dec. 6	None	V. Slt.	.58	F. Veg.	F. Veg.	3.60	1.55	2.05	.0014	.0124	.0122	.0002	.10	.0080	.0000	.65	1.3	.0120

BORDEN BROOK RESERVOIR—Surface.

90848	Jan. 11	Jan. 16	Slight	V. Slt.	.90	Dis. Veg.	Dis. Veg.	4.15	2.20	1.95	.0172	.0262	.0210	.0052	.15	.0080	.0002	.84	1.3	.1200
90698	Jan. 31	Feb. 2	Slight	Cons.	.84	Dis. Veg.	D.Vg. F.unpl.	4.95	2.05	2.90	.0236	.0282	.0176	.0056	.13	.0080	.0002	.86	1.3	.1800
91249	Mar. 7	Mar. 9	Slight	Slight	.90	Dis. unpl.	Dec. unpl. m'y	4.20	1.70	2.50	.0140	.0884	.0288	.0096	.17	.0090	.0000	.79	1.7	.1700
91844	Apr. 8	April 10	Slight	Slight	.64	F. Veg.	F. Veg. unpl.	4.00	2.35	1.65	.0132	.0276	.0220	.0056	.13	.0080	.0001	.68	1.1	.0900
92357	May 5	May 8	Slight	Cons.	.60	V. F. Veg.	F. fishy	4.20	1.85	2.35	.0208	.0304	.0200	.0104	.18	.0080	.0003	.65	0.8	.0900
92980	June 9	June 12	V. Slt.	Slight	.60	F. Veg.	Dis. Veg.	3.40	1.30	2.10	.0056	.0248	.0192	.0056	.16	.0040	.0002	.72	1.1	.0800
93635	July 10	July 11	V. Slt.	Slight	.58	Dis. Veg.	D.Veg. F.unp.	3.35	1.65	1.70	.0124	.0292	.0212	.0080	.14	.0000	.0000	.72	1.1	.0600
94158	July 31	Aug. 1	V. Slt.	Slight	.58	V. F. Veg.	F. Veg.	3.65	1.85	1.80	.0080	.0196	.0182	.0014	.14	.0080	.0002	.70	1.1	.0480
94996	Sept. 7	Sept. 8	Decid'd	Cons.	.55	F. Veg.	F. Veg.	4.25	2.15	2.10	.0160	.0868	.0266	.0102	.20	.0080	.0000	.84	1.1	.0840
95626	Oct. 6	Oct. 9	Slight	Slight	.62	F. Veg.	Dis. Veg.	3.65	1.95	1.70	.0126	.0216	.0188	.0028	.13	.0020	.0000	.70	1.3	.0950
96197	Nov. 2	Nov. 3	Slight	Cons.	.72	Dis. Veg.	Dec. Veg.	4.20	2.00	2.20	.0120	.0328	.0206	.0122	.15	.0010	.0000	.75	1.3	.1100
96853	Dec. 4	Dec. 6	Slight	Cons.	.70	F. Veg.	Dis. Veg.	3.20	1.50	1.70	.0128	.0352	.0204	.0148	.12	.0080	.0002	.75	1.3	.0900

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MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF WESTFIELD LITTLE RIVER, Springfield, 1911. (Parts in 100,000.)

BORDEN BROOK RESERVOIR—Bottom.

NO.	DATE.		APPEARANCE.			ODOR.		RESIDUE.			AMMONIA.				Chlorine.	NITROGEN.		Oxygen Consumed.	Hardness.	Iron.
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid.				As Nitrates.	As Nitrites.			
												Total	Solution.	Susp.						
90849	Jan. 11	Jan. 16	Slight	V. Slt.	.90	F. Veg.	F. Veg. unpl.	5.40	2.05	3.35	.0174	.0240	.0204	.0036	.15	.0060	.0001	.82	1.3	.1300
90699	Jan. 31	Feb. 2	Slight	Cons.	.86	F. unpl.	Dis. unpl.	4.45	2.15	2.30	.0232	.0268	.0184	.0084	.15	.0080	.0001	.78	1.3	.2200
91250	Mar. 7	Mar. 9	V. Slt.	V. Slt.	1.00	Dis. Veg.	F. unpl.	5.25	2.55	2.70	.0240	.0256	.0220	.0036	.16	.0080	.0001	.82	1.7	.1700
91845	Apr. 8	April 10	Slight	Slight	.60	F. Veg.	F. Veg. unpl.	3.90	1.35	2.55	.0136	.0220	.0174	.0046	.13	.0050	.0001	.66	1.1	.0750
92358	May 5	May 8	Slight	Cons.	.60	V. F. Veg.	F. Veg.	3.85	1.75	2.10	.0180	.0258	.0192	.0066	.16	.0010	.0002	.62	0.8	.1100
92981	June 9	June 12	V. Slt.	Slight	.60	F. Veg.	Dis.Veg. sw'h	3.50	1.50	2.00	.0108	.0272	.0176	.0096	.13	.0040	.0002	.71	1.1	.0650
93636	July 10	July 11	V. Slt.	Cons.	.55	Dis. unpl.	D.unpl.de.or.	3.85	2.00	1.85	.0172	.0272	.0188	.0084	.15	.0050	.0008	.74	0.8	.0450
94159	July 31	Aug. 1	V. Slt.	Slight	.50	V. F. Veg.	F. Veg.	3.25	1.30	1.95	.0068	.0204	.0190	.0014	.15	.0000	.0002	.67	1.3	.0500
94997	Sept. 7	Sept. 8	Decid'd	Cons.	.52	F. Veg.	F. Veg. unpl.	3.50	1.05	2.45	.0144	.0344	.0250	.0094	.14	.0030	.0001	.68	1.3	.0120
95627	Oct. 6	Oct. 9	Slight	Slight	.60	F. Veg.	Dis. Veg.	4.00	1.75	2.25	.0140	.0272	.0228	.0044	.13	.0020	.0000	68	1.3	.0900
96198	Nov. 2	Nov. 3	Slight	Slight	.70	F. Veg.	Dis. Veg.	3.75	1.50	2.25	.0112	.0228	.0194	.0034	.15	.0020	.0000	.75	1.3	.0800
96854	Dec. 4	Dec. 6	V. Slt.	Slight	.72	F. Veg.	Dis. V. e'thy	4.00	1.80	2.20	.0124	.0226	.0200	.0026	.14	.0020	.0001	.73	1.1	.0700

BORDEN BROOK—Above junction with Pebble Brook.

90846	Jan. 11	Jan. 16	None	None	.15	V. F. Veg.	F. Veg.	3.70	1.25	2.45	.0010	.0068	.0060	.0008	.18	.0140	.0001	.28	1.7	.0800
90859	Feb. 9	Feb. 13	V. Slt.	Slight	.22	V. F. Veg.	F. Veg.	3.00	1.50	1.50	.0026	.0094	.0086	.0008	.17	.0090	.0000	.33	1.3	.0100
91246	Mar. 7	Mar. 9	None	V. Slt.	.12	F. Veg.	F. Veg.	4.05	1.50	2.55	.0016	.0056	.0050	.0006	.18	.0160	.0000	.14	1.7	.0280
91842	April 8	April 10	Decid'd	Slight	.33	F. Veg.	F. Veg.	3.20	1.45	1.75	.0022	.0132	.0118	.0014	.11	.0050	.0001	.47	0.8	.0880
92354	May 5	May 8	None	V. Slt.	.38	F. Veg.	F. Veg.	3.50	1.60	1.90	.0020	.0176	.0160	.0016	.17	.0010	.0001	.52	0.8	.0080
92978	June 9	June 12	None	V. Slt.	.50	F. Veg.	Dis. Veg.	4.45	2.30	2.15	.0086	.0220	.0200	.0020	.12	.0010	.0000	.98	1.3	.0120
93632	July 10	July 11	None	V. Slt.	.25	F. Veg.	Dis. Veg.	3.70	1.85	1.85	.0026	.0126	.0114	.0012	.14	.0080	.0001	.38	0.8	.0030
94156	July 31	Aug. 1	V. Slt.	Slight	.56	V. F. Veg.	F. Veg.	4.30	1.90	2.40	.0014	.0176	.0156	.0020	.12	.0000	.0002	.76	1.6	.0130
94998	Sept. 7	Sept. 8	V. Slt.	Slight	.25	F. Veg.	F. Veg.	3.80	1.55	2.25	.0020	.0158	.0134	.0024	.18	.0080	.0000	.37	1.8	.0400
95623	Oct. 6	Oct. 9	V. Slt.	V. Slt.	.20	V. F. Veg.	F. Veg.	3.80	1.10	2.70	.0018	.0096	.0082	.0014	.21	.0030	.0000	.32	1.4	.0070
96194	Nov. 2	Nov. 3	V. Slt.	V. Slt.	.15	F. Veg.	Dis. Veg.	3.70	1.30	2.40	.0012	.0060	.0058	.0002	.17	.0030	.0000	.25	1.3	.0120
96850	Dec. 4	Dec. 6	None	V. Slt.	.10	V. F. Veg.	F. Veg.	2.70	0.85	1.85	.0008	.0068	.0064	.0004	.16	.0080	.0000	.20	1.3	.0100

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MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF WESTFIELD LITTLE RIVER, Springfield, 1911. (Parts in 100,000.)

PEBBLE BROOK—Above junction with Borden Brook.

NO.	DATE.		APPEARANCE.			ODOR.		RESIDUE.			AMMONIA.					Chlorine.	NITROGEN.		Oxygen Consumed.	Hardness.	Iron.
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid.					As Nitrates.	As Nitrites.			
												Total	Solution.	Susp.							
90845	Jan. 11	Jan. 16	None	None	.35	V. F. Veg.	F. Veg.	3.45	1.50	1.95	.0020	.0126	.0100	.0026	.14	.0060	.0000	.56	1.3	.0080
90858	Feb. 9	Feb. 13	V. Slt.	V. Slt.	.22	V. F. Veg.	F. Veg.	3.75	1.20	2.55	.0024	.0078	.0072	.0006	.19	.0090	.0000	.33	1.7	.0100
91247	Mar. 7	Mar. 9	None	V. Slt.	.21	F. Veg.	F. Veg.	3.20	1.50	1.70	.0020	.0088	.0084	.0004	.17	.0090	.0000	.33	1.7	.0080
91841	Apr. 8	Apr. 10	V. Slt.	Slight	.35	F. Veg.	D.Veg.F.unp.	2.20	1.05	1.15	.0024	.0126	.0120	.0006	.09	.0080	.0000	.44	0.8	.0130
92355	May 5	May 8	None	V. Slt.	.17	V. F. Veg.	F. Veg.	4.30	1.60	2.70	.0082	.0098	.0092	.0006	.20	.0080	.0000	.20	1.1	.0050
92977	June 9	June 12	V. Slt.	V. Slt.	.22	F. Veg.	F. Veg.	5.10	2.50	2.60	.0084	.0122	.0098	.0024	.16	.0080	.0001	.34	1.1	.0100
93634	July 10	July 11	None	V. Slt.	.26	F. Veg.	D.Veg.F.unp.	3.60	1.60	2.00	.0026	.0130	.0116	.0014	.14	.0080	.0001	.40	1.1	.0080
94155	July 31	Aug. 1	V. Slt.	Slight	.20	V. F. Veg.	F. Veg.	3.70	1.35	2.35	.0012	.0100	.0072	.0028	.15	.0040	.0000	.28	1.6	.0130
94994	Sept. 7	Sept. 8	V. Slt.	V. Slt.	.25	V. F. Veg.	F. Veg.	4.20	1.60	2.60	.0080	.0142	.0110	.0082	.15	.0080	.0000	.40	2.1	.0220
95624	Oct. 6	Oct. 9	V. Slt.	V. Slt.	.17	F. Veg.	F. Veg.	3.65	1.15	2.50	.0018	.0098	.0080	.0018	.19	.0080	.0000	.30	1.4	.0080
96195	Nov. 2	Nov. 3	None	V. Slt.	.40	F. Veg.	Dis. Veg.	3.40	1.40	2.00	.0010	.0124	.0116	.0008	15	.0010	.0000	.58	1.3	.0120
96851	Dec. 4	Dec. 6	None	V. Slt.	.26	F. Veg.	F. Veg.	2.65	1.00	1.65	.0008	.0106	.0094	.0012	.17	.0020	.0000	.39	1.1	.0080

AT TUNNEL—Raw Water.

90227	Jan. 9	Jan. 10	V. Slt.	None	.35	F. Veg.	Dis. Veg.	4.50	2.25	2.25	.0012	.0118	....	....	.19	.0080	.0000	.75	1.3	.0110
90700	Feb. 1	Feb. 3	V. Slt.	V. Slt.	.32	None	None	4.20	1.40	2.80	.0012	.0122	.0110	.0012	.21	.0050	.0001	.69	1.3	.0100
91251	Mar. 7	Mar. 9	V. Slt.	None	.25	None	None	5.60	....	....	.0006	.0080	....	....	.20	.0090	.0000	..	1.3	.0110
92359	May 5	May 8	V. Slt.	V. Slt.	.35	V. F. Veg.	V. F. Veg.	3.05	1.30	1.75	.0088	.0160	.0146	.0014	.20	.0010	.0001	.45	0.8	.0060
92982	June 9	June 12	None	V. Slt.	.62	F. Veg.	Dis. Veg.	4.10	1.85	2.25	.0068	.0252	.0190	.0062	.19	.0010	.0001	.82	1.4	.0120
93637	July 10	July 11	V. Slt.	V. Slt.	.50	F. Veg.	Dis. Veg.	3.35	1.25	2.10	.0026	.0142	.0126	.0016	.13	.0060	.0002	.58	1.0	.0450
94160	July 31	Aug. 1	Slight	Slight	.35	V. F. Veg.	F. Veg.	4.15	1.40	2.75	.0028	.0148	.0130	.0018	.11	.0010	.0001	.56	1.4	.0250
94998	Sept. 7	Sept. 8	None	V. Slt.	.64	F. Veg.	D.Veg.F.unp.	4.25	2.10	2.15	.0080	.0200	.0188	.0012	.10	.0000	.0000	.91	1.6	.0160
95628	Oct. 6	Oct. 9	V. Slt.	V. Slt.	.60	F. Veg.	Dis. Veg.	3.85	1.65	2.20	.0018	.0152	.0132	.0020	.17	.0000	.0000	.71	1.1	.0200
96199	Nov. 2	Nov. 3	V. Slt.	V. Slt.	.40	F. Veg.	Dis. Veg.	4.60	1.85	2.75	.0014	.0096	.0088	.0008	.16	.0010	.0000	.48	1.3	.0400
96855	Dec. 4	Dec. 6	None	V. Slt.	.26	F. Veg.	Dis. Veg.	3.50	1.30	2.20	.0006	.0090	.0078	.0012	.13	.0080	.0001	.36	1.1	.0080

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MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF WESTFIELD LITTLE RIVER, Springfield, 1911. (Parts in 100,000.)

WEST PARISH FILTERS—AERATOR—As Applied to Filters.

NO.	DATE.		APPEARANCE.			ODOR.		RESIDUE.			AMMONIA.				Chlorine.	NITROGEN.		Oxygen Consumed.	Hardness.	Iron.
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid. Total	Albuminoid. Solution.	Albuminoid. Susp.		As Nitrates.	As Nitrites.			
90850	Jan. 9	Jan. 16	None	None	.47	V. F. Veg.	F. Veg.	3.85	1.65	2.20	.0086	.0144	.0120	.0024	.20	.0090	.0001	.51	1.3	.0120
90701	Feb. 1	Feb. 3	Slight	Slight	.13	V. F. Veg.	F. Veg.	5.85	2.70	3.15	.0042	.0124	.0094	.0030	.16	.0070	.0001	.27	1.6	.0210
92360	May 5	May 8	V. Slt.	V. Slt.	.17	V. F. Veg.	V. F. Veg.	3.80	1.30	2.50	.0026	.0170	.0136	.0034	.16	.0010	.0002	.32	0.8	.0140
92983	June 9	June 12	Slight	Slight	.16	F. Veg.	Dis. Veg.	3.55	1.65	1.90	.0032	.0180	.0098	.0082	.18	.0040	.0002	.31	1.4	.0220
93638	July 10	July 11	None	V. Slt.	.20	F. Veg.	Dis. Veg.	4.00	1.75	2.25	.0026	.0118	.0104	.0014	.12	.0100	.0002	.33	1.1	.0280
94161	July 31	Aug. 1	Slight	Slight	.19	V. F. Veg.	F. Veg.	3.45	1.00	2 45	.0030	.0160	.0144	.0016	.13	.0030	.0006	.41	1.4	.0250
95629	Oct. 7	Oct. 9	V. Slt.	V. Slt.	.35	F. Veg.	Dis. Veg.	4.05	1.10	2.95	.0020	.0136	.0118	.0018	.16	.0000	.0000	.48	1.3	.0180
93200	Nov. 2	Nov. 3	Slight	None	.16	F. Veg.	F. Veg. unpl.	3.20	1.00	2.20	.0010	.0090	.0072	.0018	.19	.0010	.0000	.30	1.3	.0120
96856	Dec. 3	Dec. 6	V. Slt.	V. Slt.	.22	F. Veg.	Dis. Veg.	3.20	1.20	2.00	.0020	.0110	.0092	.0018	.12	.0080	.0000	.34	1.1	.0120

WEST PARISH FILTERS—Effluent.

90228	Jan. 9	Jan. 10	V. Slt.	None	.35	None	None	4.70	....	....	.0026	.0136	....	....	.19	.0100	.0000	..	1.3	.0090
90702	Feb. 1	Feb. 3	V. Slt.	None	.16	None	None	4.50	....	....	.0028	.0072	....	....	.20	.0080	.0000	..	1.6	.0120
92361	May 5	May 8	None	None	.15	None	None	3.70	....	....	.0014	.0096	....	....	.17	.0050	.0000	..	1.1	.0050
92984	June 9	June 12	None	None	.10	None	None	3.80	....	....	.0002	.0066	....	....	.12	.0040	.0000	..	1.3	.0030
93639	July 10	July 11	None	None	.10	None	None	3.00	....	....	.0000	.0052	....	....	.13	.0140	.0000	..	1.1	.0080
94162	July 31	Aug. 1	None	V. Slt.	.14	None	None	4.50	....	....	.0010	.0058	....	....	.15	.0260	.0000	..	1.7	.0010
94999	Sept. 7	Sept. 8	None	V. Slt.	.20	None	None	4.90	....	....	.0012	.0110	....	....	.11	.0080	.0000	..	1.7	.0190
95680	Oct. 7	Oct. 9	None	V. Slt.	.30	None	None	3.80	....	....	.0008	.0088	....	....	.17	.0010	.0000	..	1.3	.0080
96201	Nov. 2	Nov. 3	None	None	.10	None	None	3.80	....	....	.0000	.0050	....	....	.18	.0020	.0000	..	1.3	.0080
96857	Dec. 4	Dec. 6	None	None	.11	None	V. F. unpl.	3.80	....	....	.0014	.0076	....	....	.15	.0050	.0000	..	1.1	.0080

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MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF LUDLOW CANAL, Springfield, 1911. (Parts in 100,000.)

NO.	DATE.		APPEARANCE.			ODOR.		RESIDUE.				AMMONIA.					NITROGEN.				
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid. Total	Albuminoid. Solution.	Albuminoid. Susp.	Chlorine.	As Nitrates.	As Nitrites.	Oxygen Consumed.	Hardness.	Iron.
90188	Jan. 4	Jan. 6	Slight	V. Slt.	.70	V. F. Veg.	F. Veg.	4.95	2.25	2.70	.0020	.0252	.0198	.0054	.24	.0090	.0000	.53	1.3	.0200
90635	Jan. 30	Jan. 31	Slight	Slight	.43	F. Veg.	F. Veg. unpl.	4.00	2.00	2.00	.0036	.0148	.0136	.0010	.22	.0060	.0000	.52	1.6	.0280
91301	Mar. 8	Mar. 10	V. Slt.	V. Slt.	.26	V. F. Veg.	F. Veg. unpl.	4.25	2.00	2.25	.0022	.0120	.0112	.0008	.20	.0030	.0001	.41	1.3	.0200
91871	April 10	April 11	V. Slt.	V. Slt.	.49	F. Veg.	Dis. Veg.	3.90	1.85	2.05	.0018	.0170	.0148	.0022	.21	.0020	.0000	.56	0.8	.0110
92365	May 4	May 8	V. Slt.	V. Slt.	.42	V. F. Veg.	V. F. Veg.	3.80	1.85	1.95	.0026	.0170	.0162	.0008	.22	.0010	.0002	.62	0.8	.0280
92984	June 6	June 9	Slight	Cons.	.45	V. F. Veg.	F. Veg.	4.80	1.90	2.90	.0040	.0228	.0142	.0086	.23	.0010	.0000	.56	1.6	.0450
93778	July 14	July 17	Slight	Slight	.18	V. F. Veg.	V. F. Veg.	3.75	1.90	1.85	.0048	.0180	.0140	.0040	.20	.0000	.0000	.38	0.8	.0220
94186	July 31	Aug. 2	Slight	Slight	.27	V. F. Veg.	F. Earthy	4.10	1.70	2.40	.0032	.0124	.0112	.0012	.19	.0000	.0001	.35	1.7	.0250
94990	Sept. 7	Sept. 8	Slight	V. Slt.	.52	Dis. Veg.	Dec.veg.e't'y	4.35	1.60	2.75	.0046	.0170	.0152	.0018	.24	.0000	.0000	.48	1.8	.0400
95698	Oct. 9	Oct. 11	V. Slt.	Slight	.34	V. F. Veg.	F. Veg.	3.45	1.35	2.10	.0042	.0214	.0182	.0032	.24	.0000	.0000	.41	0.6	.0480
96184	Nov. 1	Nov. 2	V. Slt.	V. Slt.	.58	F. Veg.	Dis. Veg.	4.35	1.40	2.95	.0014	.0132	.0128	.0004	.24	.0020	.0000	.65	1.6	.0250
96951	Dec. 6	Dec. 9	V. Slt.	Slight	.40	Dis. Veg.	Dec. Veg.	4.60	1.80	2.80	.0018	.0186	.0154	.0032	.23	.0040	.0000	.52	1.3	.0150

WATER ANALYSIS OF LUDLOW RESERVOIR, Springfield, 1911. (Parts in 100,000.)

90189	Jan. 4	Jan. 6	Slight	Slight	.15	V. F. Veg.	F. Veg.	3.55	1.65	1.90	.0198	.0460	.0278	.0182	.25	.0090	.0001	.84	1.3	.0120
90636	Jan. 30	Jan. 31	Slight	Cons.	.13	F. Veg.	D.Veg.F.unp.	3.55	1.60	1.95	.0080	.0348	.0212	.0136	.20	.0080	.0001	.26	1.3	.0280
91302	Mar. 8	Mar. 10	V. Slt.	V. Slt.	.21	F. Veg.	F. Veg.	3.65	1.85	2.80	.0126	.0236	.0216	.0020	.23	.0080	.0001	.32	1.3	.0160
91872	Apr. 10	Apr. 11	V. Slt.	Slight	.31	V. F. Veg.	F. Veg.	3.60	1.85	1.75	.0028	.0222	.0178	.0044	.21	.0040	.0001	.41	1.1	.0240
92366	May 4	May 8	V. Slt.	Cons.	.30	V. F. Veg.	V. F. Veg.	3.50	1.55	1.95	.0050	.0220	.0174	.0046	.22	.0020	.0002	.41	0.8	.0220
92985	June 6	June 9	V. Slt.	Cons.	.20	V. F. Veg.	F. Veg. unpl.	3.85	1.80	2.05	.0096	.0264	.0136	.0128	.20	.0010	.0000	.34	1.1	.0380
93774	July 14	July 17	Slight	Slight	.17	F. unpl.	F.un.D.org's.	3.90	1.50	2.40	.0268	.0282	.0160	.0072	.20	.0000	.0000	.39	1.3	.0210
94187	July 31	Aug. 2	Slight	Slight	.22	V. F. Veg.	F. Veg.	3.60	1.45	2.15	.0020	.0174	.0158	.0016	.19	.0000	.0002	.35	1.1	.0280
94991	Sept. 7	Sept. 8	V. Slt.	V. Slt.	.30	V. F. Veg.	F. Veg.	3.00	1.40	1.60	.0046	.0268	.0206	.0062	.19	.0080	.0000	.29	1.4	.0400
95699	Oct. 9	Oct. 11	V. Slt.	Slight	.30	F. Veg.	Dis. Veg.	3.05	1.00	2.05	.0048	.0214	.0184	.0030	.22	.0000	.0000	.31	0.6	.0650
96185	Nov. 1	Nov. 2	Slight	Slight	.35	F. Veg.	D. Veg.sw'sh	3.50	1.05	2.45	.0024	.0272	.0152	.0120	.21	.0010	.0000	.44	1.3	.0450
96952	Dec. 6	Dec. 9	V. Slt.	V. Slt.	.35	F. Veg.	Dis. Veg.	3.55	1.45	2.10	.0046	.0184	.0166	.0018	.23	.0020	.0000	.43	1.3	.0250

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MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF LUDLOW BASIN, Springfield, 1911. (Parts in 100,000.)

[NO.	DATE.		APPEARANCE.			ODOR.		RESIDUE.			AMMONIA.				Chlorine.	NITROGEN.		Oxygen Consumed.	Hardness.	Iron.
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid. Total	Albuminoid. Solution.	Albuminoid. Susp.		As Nitrates.	As Nitrites.			
90190	Jan. 4	Jan. 6	V. Slt.	None	.14	V. F. Veg.	F. Veg.	3.65	1.45	2.20	.0142	.0208	.0194	.0014	.19	.0060	.0000	.25	0.8	.0140
90637	Jan. 30	Jan. 31	V. Slt.	Slight	.11	F. Veg.	F. Veg. unpl.	3.60	1.70	1.90	.0090	.0214	.0150	.0064	.15	.0070	.0001	.26	0.8	.0130
91303	Mar. 8	Mar. 10	V. Slt.	V. Slt.	.20	F. Veg.	F. Veg.	3.35	1.50	1.85	.0212	.0244	.0198	.0046	.24	.0130	.0002	.34	1.3	.0200
91873	April 10	April 11	V. Slt.	Slight	.30	V. F. Veg.	F. Veg.	3.60	1.50	2.10	.0084	.0226	.0178	.0048	.22	.0050	.0001	.38	0.8	.0280
92367	May 4	May 8	V. Slt.	Cons.	.19	V. F. Veg.	V. F. Veg.	3.55	1.70	1.85	.0062	.0252	.0180	.0072	.21	.0020	.0002	.34	0.8	.0280
92936	June 6	June 9	Slight	Slight	.17	F. Veg.	F. Veg.	3.45	1.25	2.20	.0082	.0240	.0168	.0072	.24	.0000	.0000	.35	1.1	.0230
93775	July 14	July 17	Slight	Slight	.14	V. F. unpl.	F. unpl.	3.45	1.85	1.60	.0086	.0144	.0134	.0010	.23	.0000	.0000	.34	1.3	.0100
94188	July 31	Aug. 2	Slight	Slight	.27	V. F. Veg.	F. Fishy	3.20	1.40	1.80	.0084	.0188	.0154	.0084	.22	.0000	.0002	.35	1.3	.0550
94992	Sept. 7	Sept. 8	V. Slt.	V. Slt.	.26	Dis. Veg.	Dis. Veg.	3.05	1.45	1.60	.0036	.0230	.0196	.0034	.21	.0000	.0000	.30	1.4	.0230
95700	Oct. 9	Oct. 13	V. Slt.	Slight	.21	F. Veg.	D.Veg.gra'sy	3.10	1.15	1.95	.0048	.0208	.0158	.0050	.22	.0020	.0000	.30	0.8	.0460
96186	Nov. 1	Nov. 2	V. Slt.	V. Slt.	.17	F. Veg.	D. Veg. F. un.	3.05	1.05	2.00	.0022	.0170	.0150	.0020	.20	.0010	.0000	.28	1.3	.0350
96953	Dec. 6	Dec. 9	V. Slt.	V. Slt.	.24	F. Veg.	F. Veg. unpl.	3.20	1.15	2.05	.0046	.0164	....	....	.22	.0050	.0000	.35	1.3	.0300

WATER ANALYSIS OF CHAPIN POND, Springfield, 1911. (Parts in 100,000.)

90185	Jan. 4	Jan. 6	Decid'd	Slight	.11	V. F. Veg.	V.F.Vg. fishy	2.00	1.00	1.00	.0064	.0164	.0128	.0036	.14	.0010	.0001	.21	0.2	.0180
90990	Feb. 16	Feb. 18	V. Slt.	V. Slt.	.04	F. Veg.	F. Veg.	2.80	1.20	1.60	.0138	.0222	.0206	.0016	.21	.0010	.0000	.16	0.8	.0080
91298	Mar. 8	Mar. 10	V. Slt.	V. Slt.	.09	F. Veg.	F. Veg. unpl.	2.90	1.20	1.70	.0166	.0228	.0190	.0038	.21	.0020	.0001	.22	0.8	.0240
91868	April 10	April 11	V. Slt.	Slight	.09	V. F. unpl.	F. unpl.	2.40	1.15	1.25	.0102	.0200	.0160	.0040	.15	.0010	.0001	.19	0.5	.0090
92362	May 4	May 8	V. Slt.	Slight	.11	V. F. Veg.	V.F.Vg. F.un.	2.20	1.00	1.20	.0084	.0224	.0190	.0034	.14	.0020	.0002	.18	0.5	.0120
92931	June 6	June 9	V. Slt.	Slight	.08	V. F. Veg.	F. Veg. unpl.	2.80	1.15	1.65	.0062	.0212	.0192	.0020	.14	.0000	.0000	.17	0.5	.0030
93770	July 14	July 17	Slight	Slight	.05	None	V. F. Veg.	2.95	1.35	1.60	.0080	.0188	.0140	.0048	.17	.0000	.0000	.23	0.5	.0050
94183	July 31	Aug. 2	Slight	Slight	.04	None	V. F. Veg.	2.25	0.80	1.45	.0008	.0202	.0152	.0050	.15	.0000	.0000	.26	0.5	.0050
94987	Sept. 7	Sept. 8	V. Slt.	V. Slt.	.01	V. F. unpl.	F. unpl.	2.40	1.05	1.35	.0012	.0228	.0184	.0044	.15	.0000	.0000	.21	0.8	.0100
95695	Oct. 9	Oct. 11	V. Slt.	Slight	.02	V. F. Veg.	F. Veg.	2.80	1.05	1.75	.0046	.0214	.0170	.0044	.15	.0000	.0000	.20	0.2	.0360
96181	Nov. 1	Nov. 2	V. Slt.	Cons.	.04	Dis. unpl.	D.un.d.org'm	2.20	1.05	1.15	.0006	.0192	.0146	.0046	.15	.0000	.0000	.19	0.5	.0250
96948	Dec. 6	Dec. 9	V. Slt.	V. Slt.	.01	F. unpl.	F. unpl.	2.35	0.90	1.45	.0084	.0220	.0186	.0034	.17	.0000	.0000	.15	0.8	.0040

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MASSACHUSETTS STATE BOARD OF HEALTH.

WATER ANALYSIS OF FIVE MILE POND, Springfield, 1911. (Parts in 100,000.)

NO.	DATE.		APPEARANCE.			ODOR.		RESIDUE.			AMMONIA.				Chlorine.	NITROGEN.		Oxygen Consumed.	Hardness.	Iron.
	Collection.	Examination.	Turbidity.	Sediment.	Color.	Cold.	Hot.	Total.	Volatile.	Fixed.	Free.	Albuminoid. Total	Solution.	Susp.		As Nitrates.	As Nitrites.			
90186	Jan. 4	Jan. 6	Slight	V. Slt.	.09	V. F. unpl.	V. F. unpl.	1.30	0.40	0.90	.0174	.0150	.0128	.0022	.12	.0020	.0000	.21	0.2	.0120
90633	Jan. 30	Jan. 31	V. Slt.	Slight	.09	F. Veg.	F. Veg. unpl.	2.20	1.10	1.10	.0100	.0156	.0148	.0008	.15	.0020	.0000	.18	0.5	.0310
91299	Mar. 8	Mar. 10	V. Slt.	Slight	.10	V. F. Veg.	F. Veg.	3.50	1.50	2.00	.0084	.0164	.0142	.0022	.18	.0010	.0001	.22	0.8	.0200
91869	April 10	April 11	V. Slt.	V. Slt.	.10	V. F. unpl.	F. unpl. fishy	2.15	0.95	1.20	.0068	.0156	.0128	.0028	.18	.0010	.0000	.14	0.5	.0130
92363	May 4	May 8	V. Slt.	Slight	.04	V. F. Veg.	F. fishy	2.15	1.05	1.10	.0052	.0178	.0142	.0036	.20	.0020	.0002	.29	0.5	.0030
92982	June 6	June 9	V. Slt.	V. Slt.	.10	V. F. Veg.	F. Veg.	2.85	0.90	1.95	.0058	.0174	.0158	.0016	.20	.0000	.0000	.20	0.5	.0080
93771	July 14	July 17	Slight	Slight	.08	None	V. F. Veg.	2.50	0.90	1.60	.0088	.0166	.0122	.0044	.18	.0000	.0000	.23	0.3	.0150
94184	July 31	Aug. 2	Slight	Slight	.06	None	V. F. Veg.	2.75	1.10	1.65	.0022	.0168	.0140	.0028	.31	.0000	.0000	.18	1.0	.0120
94988	Sept. 7	Sept. 8	V. Slt.	V. Slt.	.08	F. Veg.	F. Veg.	2.25	0.90	1.35	.0080	.0208	.0172	.0036	.20	.0000	.0000	.22	0.8	.0070
95696	Oct. 9	Oct. 11	V. Slt.	Slight	.10	V. F. Veg.	F. Veg.	2.30	0.90	1.40	.0054	.0176	.0144	.0032	.21	.0000	.0000	.17	0.2	.0330
96182	Nov. 1	Nov. 2	V. Slt.	V. Slt.	.09	F. unpl.	Dis.unp. fishy	2.05	1.00	1.05	.0040	.0162	.0134	.0028	.19	.0000	.0000	.15	0.5	.0130
96949	Dec. 6	Dec. 9	V. Slt.	V. Slt.	.08	F. Veg.	F. Veg.	2.55	1.05	1.50	.0078	.0206	.0192	.0014	.21	.0000	.0000	.18	0.8	.0080

WATER ANALYSIS OF LOON POND, Springfield, 1911. (Parts in 100,000.)

90187	Jan. 4	Jan. 6	V. Slt.	V. Slt.	.03	V. F. Veg.	F. Veg.	3.15	1.25	1.90	.0074	.0114	.0102	.0012	.23	.0010	.0001	.19	0.2	.0280
90634	Jan. 30	Jan. 31	V. Slt.	V. Slt.	.10	F. Veg.	Dis. Veg.	3.25	1.35	1.90	.0018	.0168	.0154	.0014	.28	.0010	.0000	.18	0.8	.0090
91300	Mar. 8	Mar. 10	Slight	Slight	.09	V. F. Veg.	F. Veg.	3.25	1.20	2.05	.0138	.0246	.0222	.0024	.34	.0020	.0001	.22	0.8	.0090
91870	April 10	April 11	Slight	V. Slt.	.10	V. F. unpl.	F. unpl.	3.15	1.35	1.80	.0024	.0160	.0152	.0008	.27	.0020	.0001	.16	0.8	.0120
92364	May 4	May 8	V. Slt.	V. Slt.	.05	V. F. Veg.	V. F. Veg.	3.15	1.15	2.00	.0054	.0186	.0162	.0024	.30	.0010	.0000	.24	0.8	.0100
92988	June 6	June 9	V. Slt.	V. Slt.	.05	F. Veg.	Dis. Veg.	4.30	1.55	2.75	.0042	.0168	....	....	.31	.0000	.0000	.15	1.3	.0100
93772	July 14	July 17	Slight	Slight	.04	V. F. Veg.	V. F. Veg.	3.65	1.45	2.20	.0036	.0156	.0140	.0016	.29	.0000	.0000	.18	0.3	.0080
94185	July 31	Aug. 2	Slight	Slight	.13	None	V. F. Veg.	2.75	1.05	1.70	.0024	.0178	.0158	.0020	.18	.0000	.0000	.20	0.6	.0120
94989	Sept. 7	Sept. 8	V. Slt.	Slight	.06	V. F. Veg.	F. Veg.	2.10	0.75	1.35	.0022	.0200	.0170	.0030	.29	.0000	.0000	.16	1.1	.0280
95697	Oct. 9	Oct. 11	V. Slt.	Slight	.03	F. Veg.	Dis. veg. an'a	3.25	1.20	2.05	.0020	.0194	.0142	.0052	.31	.0000	.0000	.13	0.6	.0100
96188	Nov. 1	Nov. 2	V. Slt.	Slight	.02	F. Veg.	Dis. Veg.	2.45	1.15	1.30	.0016	.0212	.0140	.0072	.29	.0000	.0000	.12	1.1	.0250
96950	Dec. 6	Dec. 9	V. Slt.	V. Slt.	.01	F. Veg.	Dis. Veg.	2.80	1.05	1.75	.0054	.0210	.0164	.0046	.31	.0010	.0000	.18	0.8	.0080

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APPENDIX XIX.

LITTLE RIVER WATER SUPPLY
SPRINGFIELD, MASS.

CONSUMPTION AS METERED AT PROVIN MOUNTAIN RESERVOIR.
IN MILLIONS OF GALLONS. CONSUMPTION OF SPRINGFIELD ALONE.

1911	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	8.53	10.67	.....	.....	10.40	11.26	12.33	11.04	11.11	8.80	11.80	9.48
2	10.26	10.58	.....	.....	10.46	11.96	11.47	11.27	10.34	11.15	11.98	8.97
3	10.38	10.58	.....	.....	9.92	10.13	14.91	10.65	9.17	11.22	9.75	8.00
4	11.59	8.79	.....	.....	10.00	9.34	12.00	11.20	9.70	11.18	9.00	11.83
5	11.72	8.56	.....	.....	10.10	10.78	13.10	10.39	11.78	11.07	8.32	9.40
6	10.75	11.28	.....	.....	9.82	10.29	11.81	9.35	11.68	11.08	11.02	10.90
7	9.19	10.66	.....	.....	9.00	10.93	12.82	11.64	12.17	9.32	10.94	10.37
8	8.39	10.55	.....	.....	12.42	11.43	11.55	11.06	10.65	8.56	11.30	10.10
9	11.42	10.26	.....	.....	11.00	11.91	11.03	11.33	9.34	11.74	10.84	8.52
10	11.00	.....	.....	.....	12.00	10.25	13.44	11.93	8.98	11.22	10.61	7.37
11	11.03	.....	.....	.....	12.12	8.63	13.68	10.91	10.72	10.94	8.81	10.81
12	10.66	.....	.....	11.23	12.10	10.83	12.18	10.71	10.91	9.71	8.22	11.00
13	10.60	.....	.....	11.21	10.54	11.04	11.80	9.49	10.72	11.16	11.18	10.40
14	8.78	.....	.....	10.90	9.42	11.10	11.48	12.08	10.45	9.36	10.70	10.59
15	8.41	.....	.....	9.33	12.54	11.24	11.06	11.22	10.50	8.40	11.35	10.00
16	11.90	.....	.....	8.37	12.84	11.31	9.83	10.80	9.53	11.15	10.68	8.20
17	11.70	.....	.....	11.57	12.72	10.42	11.54	11.16	8.35	10.76	10.41	*7.99
18	11.73	.....	.....	11.70	12.74	9.10	11.82	10.39	11.40	11.24	8.90	11.21
19	11.61	.....	.....	8.43	12.33	12.30	11.70	9.80	11.15	10.91	8.29	11.20
20	10.14	.....	.....	11.19	10.25	11.76	10.67	8.82	11.54	10.97	11.12	10.44
21	8.21	.....	.....	11.91	9.59	11.82	10.75	11.07	11.16	9.40	10.60	10.82
22	8.22	.....	.....	9.61	13.75	11.33	.....	11.15	11.05	8.56	10.76	10.00
23	11.00	.....	.....	8.89	11.90	12.56	9.37	10.97	9.70	11.47	10.84	8.40
24	10.42	.....	.....	12.37	11.00	12.04	10.57	10.66	8.71	11.24	10.15	7.07
25	12.24	.....	.....	11.86	11.01	8.10	10.50	10.21	11.46	11.21	8.71	7.21
26	9.22	.....	.....	11.93	11.52	11.15	10.80	9.71	10.76	10.93	7.74	9.02
27	9.88	.....	.....	11.60	10.43	12.10	10.85	8.66	11.11	10.00	11.23	9.00
28	.....	.....	.....	11.80	9.43	12.42	9.90	10.65	10.85	9.25	10.72	9.64
29	7.08	.....	.....	10.27	11.83	12.47	9.45	10.21	10.65	8.21	11.04	9.13
30	10.76	.....	.....	8.49	8.92	13.30	8.61	10.63	9.73	11.40	6.63	8.50
31	10.58	.....	.....	.....	11.28	.....	11.19	10.10	.....	10.04	.....	7.45
Totals	307.40	91.93	.....	202.66	343.38	333.30	342.20	329.21	315.37	321.65	308.59	298.02
Aver.	10.25	10.21	.....	10.67	11.08	11.10	11.41	10.62	10.51	10.38	10.12	9.45

All blanks=Ludlow supply connected.
*Additional amount of 1.31 million gallons lost by break.
☞See next page for water sold to Town of West Springfield.

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APPENDIX XX.

LITTLE RIVER WATER SUPPLY
SPRINGFIELD, MASS.

WATER SOLD TO THE TOWN OF WEST SPRINGFIELD.

IN MILLIONS OF GALLONS. AS METERED AT KING'S HIGHWAY.

1911	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....
6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	.....	.....	.....	.....	.....	.....	2.26	.....	.....	.....	.....	.....
11	.....	.....	.....	.....	.....	.....	1.08	.....	.....	.....	.....	.....
12	.....	.....	.....	.....	.....	.....	1.10	.....	.....	.....	.....	.....
13	.....	.....	.....	.....	.....	.....	.75	.....	.....	.....	.....	.....
14	.....	.....	.....	.....	.....	.....	.52	.....	.....	.....	.....	.....
15	.....	.....	.....	.....	.....	.....	.51	.50	.....	.....	.....	.....
16	.....	.....	.....	.....	.....	.....	.47	.51	.....	.....	.....	.....
17	.....	.....	.....	.....	.....	.....	.53	.53	.....	.....	.....	.....
18	.....	.....	.....	.....	.....	.....	.50	.51	.....	.....	.....	.....
19	.....	.....	.....	.....	.....	.....	.50	.51	.....	.....	.....	.....
20	.....	.....	.....	.....	.....	.....	.45	.51	.....	.....	.....	.....
21	.....	.....	.....	.....	.....	.....	.49	.53	.....	.....	.....	.....
22	.....	.....	.....	.....	.....	.....	.....	.50	.....	.....	.....	.....
23	.....	.....	.....	.....	.....	.....	.....	.51	.....	.....	.....	.....
24	.....	.....	.....	.....	.....	.....	.....	.45	.....	.....	.....	.....
25	.....	.....	.....	.....	.....	.....	.....	.45	.....	.....	.....	.....
26	.....	.....	.....	.....	.....	.....	.....	.49	.....	.....	.....	.....
27	.....	.....	.....	.....	.....	.....	.....	.49	.....	.....	.....	.....
28	.....	.....	.....	.....	.....	.....	.....	.52	.....	.....	.....	.....
29	.....	.....	.....	.....	.....	.....	.....	.16	.....	.....	.....	.....
30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	.....	.....	.....	.....	.....	.....	9.17	7.15	.....	.....	.....	.....
Aver.	.....	.....	.....	.....	.....	.....	.76	.48	.....	.....	.....	.....

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APPENDIX XXI.

LITTLE RIVER WATER SUPPLY SPRINGFIELD, MASS.

Operating Details at West Parish Filters—1911.

FILTERS SCRAPED

MONTH	Number Filters Scraped	Cubic Yards of Sand Removed			Depth in Inches		
		Maximum	Minimum	Average	Maximum	Minimum	Average
January	1	168.0	168.0	168.0	2.00	2.00	2.00
February	0	0	0	0	0	0	0
March	1	173.0	173.0	173.0	2.50	2.50	2.50
April	3	190.0	121.45	144.30	1.75	1.75	1.75
May	6	138.8	138.20	138.30	2.75	2 00	2 37
June	6	173.0	103.8	126.9	2.50	1.50	1.86
July	7	138.6	104.1	126.4	2.00	1.50	1.75
August	6	141.0	120.9	130.1	2.00	1.75	1.87
September	5	224.9	138.4	166.1	2.00	3.25	2.43
October	5	207.6	69.2	179.9	3.00	3.00	3.00
November	5	207.6	69.2	152.2	3.00	1.00	2.10
December	2	224.9	103.8	164.3	3.25	1.50	2.08
Year	47	224.9	69.2	160.9	3.25	1.00	2.16

FILTER RUNS FOLLOWING SCRAPINGS

MONTH	Duration in Days			Million Gallons Filtered			No. Runs Ending
	Maximum	Minimum	Average	Maximum	Minimum	Average	
January	40	40	40	82.14	82.14	82.14	1
February	46	46	46	104.17	104.37	104.37	1
March	0	0	0	0	0	0	0
April	59	54	57	143.29	122.29	131.79	3
May	47	28	29	101.01	60.73	69.75	6
June	25	20	23	61.73	49.49	56.36	6
July	29	19	24	71.36	59.75	64.80	7
August	24	16	21	61.63	45.36	56.54	6
September	28	25	26	67.83	59.31	64.88	5
October	35	30	32	83.38	80.60	81.80	5
November	26	17	22	66.42	45.81	55.22	5
December	38	36	37	98.58	83.30	90.91	2
Year	59	17	32	143.29	45.36	78.05	47

FILTERS RESANDED

No. of Filters Resanded	Cubic Yards of Sand Replaced			Depth in Inches		
	Maximum	Minimum	Average	Maximum	Minimum	Average
7	1625.9	882.8	1210.9	24	12	17

COST PER MILLION GALLONS DELIVERED TO CITY

ITEMS	Supervision and Laboratory	Sand Handling	Coagulant	Grounds and Buildings	Equipment	Miscellaneous	Credits	Total
Labor	$0.94	$1.12	$0.12	$1.62	$0.29	$0.15	.....	$4.24
Materials	.08	.....	1.54	.31	.94	.15	.....	3.02
								$7.26
Total	$1.02	$1.12	$1.66	$1.93	$1.23	$0.30	-$1.25	-1.25
								$6.01

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CITY OF SPRINGFIELD, MASSACHUSETTS, WATER COMMISSIONERS.

SINCE ACQUISITION OF WATER WORKS BY CITY, IN 1872.

The first Board of Water Commissioners (in charge of the early construction of Ludlow supply) consisted of the following *five citizens*, who were elected by the legal voters of Springfield, May 28, 1872, to serve until January 1, 1875, in accordance with the provisions of the *first* portion of Section 5, Chapter 345, of the Acts of 1872.

Horace Smith, *Pres.*,* Samuel W. Porter, *Sec.*, A. D. Briggs, Geo. C. Fisk, Daniel L. Harris.

*Horace Smith resigned, and Charles O. Chapin was elected as his successor March 25, 1873; chosen President of Board April 5, 1873.

From January 1, 1875, to March 29, 1880, the Board of Water Commissioners consisted of *three citizens*, who were chosen by the City Council of Springfield in accordance with the *last* portion of Section 5, Chapter 345, Acts of 1872. This portion provides, that, "Thereafter the rights, powers and authority granted to the said city by this act shall be vested in and exercised by a board of water commissioners, consisting of *three citizens* of said city, who shall be chosen by the city council of said city, one for the term of one year from the first day of January in the year eighteen hundred and seventy-five, one for the term of two years, one for the term of three years, and annually thereafter one water commissioner shall be so chosen to serve for the term of three years."

Under these provisions the following Boards were elected:—

1875—Charles O. Chapin, *Pres.*, Samuel W. Porter, *Sec.*, Lawson Sibley.
1876—Charles O. Chapin, *Pres.*, Samuel W. Porter, *Sec.*, Lawson Sibley.
1877—Charles O. Chapin, *Pres.*, Samuel W. Porter, *Sec.*, N. W. Talcott.
1878—Charles O. Chapin, *Pres.*, Samuel W. Porter, *Sec.*, N. W. Talcott.
1879—Charles O. Chapin, *Pres.*, Samuel W. Porter, *Sec.*, N. W. Talcott.
1880 (to March 29)—Charles O. Chapin, *Pres.*, Samuel W. Porter, *Sec.*, N. W. Talcott.

The Board of Water Commissioners established under the Act of 1872 was abolished by Chapter 30 of the Acts of 1880, which was accepted by the City Council and approved March 22, 1880, and Section 2 of which provides, that, "As soon as practicable after the passage of this act, the City Council of said city shall elect by ballot in joint convention *two citizens* thereof, one

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for the term of one year, and one for the term of two years, from February first in the year eighteen hundred and eighty, as water commissioners, who, with the *mayor* as an *ex officio* member, shall constitute the Board of Water Commissioners of said city of Springfield,* * * And hereafter said City Council shall annually in the month of January elect by ballot in joint convention one citizen as a member of said Board for the term of two years from the succeeding first day of February."

Under this act the following Boards were elected, each Board then choosing its Chairman:—

1880 (from March 29)—Lewis J. Powers, *Mayor and Ch.*, Hiram Q. Sanderson, Noyes W. Fisk.
1881—Hiram Q. Sanderson, *Ch.*, William H. Haile, *Mayor*, Noyes W. Fisk.
1882—Hiram Q. Sanderson, *Ch.*, Edwin W. Ladd, *Mayor*, Noyes W. Fisk.
1883—Hiram Q. Sanderson, *Ch.*, Henry M. Phillips, *Mayor*, Noyes W. Fisk.
1884—Hiram Q. Sanderson, *Ch.*, Henry M. Phillips, *Mayor*, Noyes W. Fisk.
1885—Hiram Q. Sanderson, *Ch.*, Henry M. Phillips, *Mayor*, Noyes W. Fisk.
1886—Hiram Q. Sanderson, *Ch.*, Edwin D. Metcalf, *Mayor*, Noyes W. Fisk.
1887—Hiram Q. Sanderson, *Ch.*, Elisha B. Maynard, *Mayor*, Noyes W. Fisk.
1888—Hiram Q. Sanderson, *Ch.*, Elisha B. Maynard, *Mayor*, Noyes W. Fisk.
1889—Hiram Q. Sanderson, *Ch.*, Edward S. Bradford, *Mayor*, Noyes W. Fisk.*

*Noyes W. Fisk resigned June 10, 1889, and Charles L. Goodhue was elected June 24, 1889, as his successor.

1890—Hiram Q. Sanderson, *Ch.*, Edward S. Bradford, *Mayor*, Charles L. Goodhue.
1891—Hiram Q. Sanderson, *Ch.*, Edward S. Bradford, *Mayor*, Charles L. Goodhue.
1892 (to May 1)—Hiram Q. Sanderson, *Ch.*,* Lawson Sibley, *Mayor*, Charles L. Goodhue.

*Hiram Q. Sanderson died May 1, 1892, and Richard F. Hawkins was elected Commissioner June 6, 1892, for the balance of the former's term; Charles L. Goodhue was then chosen Chairman of the Board.

1892 (from June 6)—Charles L. Goodhue, *Ch.*, Lawson Sibley, *Mayor*, Richard F. Hawkins.
1893—Charles L. Goodhue, *Ch.*, Edmund P. Kendrick, *Mayor*, Richard F. Hawkins.*

*Richard F. Hawkins, having served the portion of the term for which he was elected, declined to serve longer, and January 22, 1894, James F. Bidwell was elected as his successor.

1894—Charles L. Goodhue, *Ch.*, Edmund P. Kendrick, *Mayor*, James F. Bidwell.
1895—Charles L. Goodhue, *Ch.*, Charles L. Long, *Mayor*, James F. Bidwell.
1896—Charles L. Goodhue, *Ch.*, Newrie D. Winter, *Mayor*, James F. Bidwell.
1897—Charles L. Goodhue, *Ch.*, Newrie D. Winter, *Mayor*, James F. Bidwell.
1898—Charles L. Goodhue, *Ch.*, Henry S. Dickinson, *Mayor*, James F. Bidwell.
1899—Charles L. Goodhue, *Ch.*, Dwight O. Gilmore, *Mayor*, James F. Bidwell.

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1900—Charles L. Goodhue, *Ch.*, William P. Hayes, *Mayor*, James F. Bidwell.
1901—Charles L. Goodhue, *Ch.*, William P. Hayes, *Mayor*, James F. Bidwell.
1902—Charles L. Goodhue, *Ch.*, Ralph W. Ellis, *Mayor*, James F. Bidwell.*

*James F. Bidwell resigned July 1, 1902, and Charles H. Bennett was elected July 28, 1902, as his successor.

1903—Charles L. Goodhue, *Ch.*, Everett E. Stone, *Mayor*, Charles H. Bennett.
1904—Charles L. Goodhue, *Ch.*,* Everett E. Stone, *Mayor*, Charles H. Bennett.

*Charles L. Goodhue resigned January 23, 1905, and Everett E. Stone was elected Commissioner January 31, 1905, and was then chosen Chairman of the Board.

1905—Everett E. Stone, *Ch.*, Francke W. Dickinson, *Mayor*, Charles H. Bennett.
1906—Everett E. Stone, *Ch.*, Francke W. Dickinson, *Mayor*, Charles H. Bennett.
1907—Everett E. Stone, *Ch.*, William E. Sanderson, *Mayor*, Charles H. Bennett.
1908—Everett E. Stone, *Ch.*,* William E. Sanderson, *Mayor*, Charles H. Bennett.

*Everett E. Stone resigned as Chairman (retaining membership in Board) May 6, 1908, and the Water Board elected Charles H. Bennett, Chairman.
Mr. Stone resigned as Commissioner September 21, 1908, and Stanford L. Haynes was elected by the City Council September 28, 1908, for the remainder of the former's term.

1909—Charles H. Bennett, *Ch.*, William E. Sanderson, *Mayor*, Stanford L. Haynes.
1910 (to January 19)—Charles H. Bennett, *Ch.*,* Edward H. Lathrop, *Mayor*, Stanford L. Haynes.

*Charles H. Bennett died January 19, 1910, and Clifton A. Crocker was elected Commissioner by the City Council January 31, 1910, for two years from February 1, 1910; the Water Board elected Mr. Crocker Chairman February 1, 1910.

1910 (from February 1)—Clifton A. Crocker, *Ch.*, Edward H. Lathrop, *Mayor*, Stanford L. Haynes.
1911 (to June 20)—Clifton A. Crocker, *Ch.*, Edward H. Lathrop, *Mayor*, Stanford L. Haynes.*

*Stanford L. Haynes resigned June 20, 1911, and Fred R. Brown was elected by the City Council, September 18, 1911, for the remainder of the former's term.

1911 (from September 18)—Clifton A. Crocker, *Ch.*,* Edward H. Lathrop, *Mayor*, Fred R. Brown.

*Clifton A. Crocker declined to be a candidate for re-election, and Herbert C. Puffer was elected by the City Council January 29, 1912, for two years from February 1, 1912; the Water Board elected Mr. Brown Acting Chairman, February 5, 1912, in the absence of Mr. Puffer from the city.

1912—Fred R. Brown, *Acting Ch.*, Edward H. Lathrop, *Mayor*, Herbert C. Puffer.

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STREETS AND SEWERS.

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FORTY-THIRD ANNUAL REPORT

OF THE

STREET DEPARTMENT.

SPRINGFIELD, MASS., December 28, 1911.

To the City Council:—

In accordance with the requirements of Chapter 19, Section 5, of the Revised Ordinances, I have the honor of presenting statements of receipts and expenditures of the Street Department and descriptions of work done during the fiscal year ending December 1, 1911.

FINANCES IN GENERAL.

REGULAR ACCOUNTS.

RECEIPTS.

Highways and Bridges,	$295,575 62	
Walks and Curbing,	32,393 87	
Watering Streets,	40,568 67	
Ashes Collection,	49,733 05	
Garbage Collection,	22,533 99	
		$440,805 20

EXPENDITURES.

Highways and Bridges,	$282,883 31	
Walks and Curbing,	30,536 06	
Watering Streets,	39,433 06	
Ashes Collection,	48,144 65	
Garbage Collection,	21,678 94	
		$422,676 02

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UNEXPENDED BALANCES.

Highways and Bridges,	$12,692 31	
Walks and Curbing,	1,857 81	
Watering Streets,	1,135 61	
Ashes Collection,	1,588 40	
Garbage Collection,	855 05	
		$18,129 18

SPECIAL ACCOUNTS.

COURT STREET PAVING.

Limit of expenditures,	$7,000 00	
Transfer from Contingent Account,	49	
		$7,000 49
Expenditures,		$7,000 49

LOCUST STREET LAYOUT.

Limit of expenditures,	$31,634 00	
Expenditures,	17,091 50	
Unexpended balance,		$14,542 50

NORTH STREET EXTENSION.

Limit of expenditures,	$233,280 37	
Expenditures,	233,054 18	
Unexpended balance,		$226 19

PECOUSIC AVENUE. RELOCATION AND IMPROVEMENTS.

Limit of expenditures,	$32,117 00	
Expenditures,	26,607 17	
Unexpended balance,		$5,509 83

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WORK IN GENERAL.

Streets,	Grading and graveling,	2,090 feet
	Gravel resurfacing,	7,600 feet
	Macadamizing,	21,867 feet
	Macadam resurfacing,	5,564 feet
	Asphalt resurfacing,	635 sq. yards
	Bitulithic paving,	2,871 feet
	Bitulithic paving skim coat,	6,835 sq. yards
	Wood block paving,	1,812 feet
Street cleaning,	Gravel,	12.41 miles
	Macadam,	74.13 miles
	Paving,	12.24 miles
Sidewalks,	Brick (new),	5,133 feet
	Brick (relaid),	3,635 feet
	Cement concrete (new),	3,973 feet
	Tar concrete (new),	823 feet
	Tar concrete (resurfaced),	1,169 feet
Curbing,	Set,	15,393 feet
	Reset,	11,163 feet
Crosswalks—new,		51
Streets watered,		95.87 miles
Ashes collected,		29,697 loads
Garbage collected,		1,837 cords

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FINANCES ITEMIZED.

HIGHWAYS AND BRIDGES.

RECEIPTS.

Appropriation,	$214,500 00	
Springfield Street Railway Company,		
Corporation tax,	25,943 88	
Excise tax,	14,671 37	
Bills rendered departments and private parties,	37,043 37	
Transfer from North Street Extension,	2,000 00	
Licenses for occupying and opening streets,	1,417 00	
		$295,575 62

EXPENDITURES.

Automobiles, repairs and supplies,	$1,342 98
Bridges, repairs and care,	2,838 63
City teams, uncredited,	157 46
City yard, Logan street,	91 66
City yard, Summer street,	3,991 79
Engineering,	574 85
Foremen's winter and holiday pay,	1,802 94
Land damages,	1,528 56
Material used, macadamizing 1910,	2,336 38
Material used, paving 1910,	1,294 54
Material, wood blocks and lumber for South End Bridge and lumber for North End Bridge to be used in 1912,	9,963 59
Material uncredited,	5,116 98
Office and general expenses,	4,419 38
Salary of superintendent,	1,458 35
Salary of assistant superintendent, part,	1,547 40

Street construction,	Grading and graveling,	953 70
	Macadamizing,	37,464 64
	Paving, balance of contract 1910,	10,789 78
	Paving,	39,592 66

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Street maintenance,	Cleaning,	$42,704 14	
	Cleaning equipment,	1,499 88	
	General repairs,	31,687 83	
	Gravel resurfacing,	1,589 23	
	Macadam resurfacing,	11,081 15	
	Paving resurfacing,	5,125 99	
	Winter expense,	20,218 49	
Tools and supplies,		3,913 29	
Work and material charged to departments,		16,711 14	
Work and material charged to private parties,		19,585 90	
		$281,383 31	
Transferred to Walks and Curbing,		1,500 00	
		$282,883 31	
Unexpended balance,		12,692 31	$295,575 62

BILLS RECEIVABLE.

Bills receivable November 30, 1910,	$4,106 13	
Bills committed, fiscal year 1911,	31,797 49	
Bills committed from Locust Street Layout,	10,000 00	
		$45,903 62
Bills paid, fiscal year 1911,	$35,021 54	
Abatements,	62 19	
		35,083 73
Bills receivable November 30, 1911,	$819 89	
Bills receivable November 30, 1911, Locust Street Layout,	10,000 00	
		$10,819 89

WALKS AND CURBING.

RECEIPTS.

Appropriation,	$15,000 00	
Bills rendered abutters for work done previous to 1911,	8,073 87	
Bills rendered abutters for work done during 1911,	7,820 00	
Transfer from Highways and Bridges,	1,500 00	
		$32,393 87

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EXPENDITURES.

Crosswalks, new and relaid,	$4,897 53	
Curbing, set and reset,	5,921 53	
Engineering,	481 43	
Foremen's winter and holiday pay,	93 49	
Office and general expenses,	237 96	
Material and tools,	96 39	
Salary of assistant superintendent, part,	588 43	
Sidewalks, maintenance, charged city,	1,103 59	
Sidewalks, construction, charged city,	867 69	
Work and material charged to departments,	1,828 51	
Work and material charged to abutters,	14,419 51	
	$30,536 06	
Unexpended balance,	1,857 81	
		$32,393 87

BILLS RECEIVABLE.

Bills unpaid November 30, 1910,	$2,660 52	
Bills committed, fiscal year 1911,	19,037 22	
		$21,697 74
Bills paid, fiscal year 1911,	$15,894 87	
Abatements,	1,091 93	
		16,986 80
Bills receivable November 30, 1911,		$4,710 94

WATERING STREETS.

RECEIPTS.

Appropriation,	$8,400 00	
Watering streets assessments,	29,682 99	
Springfield Street Railway Company, by agreement,	2,306 65	
Bills rendered, use of teams and oil sold,	179 03	
		$40,568 67

EXPENDITURES.

General expense,	$367 93	
Standpipes and car hydrants, construction, maintenance, opening, and closing,	1,601 13	
Standpipe bases,—construction and maintenance,	10 08	

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Carts, storage, painting, and repairs, . .	$757 46	
Use of teams as per pay roll, . . .	6,543 07	
Use of teams as per contract, . . .	2,418 75	
American Car Sprinkler Company, as per contract, ...	8,360 00	
Inspector, ...	1,075 70	
Inspector's horse and carriage, . . .	319 02	
Tools and materials, ...	1 40	
Dust laying materials and labor, . . .	16,026 90	
Oil tanks, ...	1,507 32	
Private parties, use of teams, sale of oil, .	458 73	
	$39,447 49	
City teams credited, ...	14 43	
	$39,433 06	
Unexpended balance, ...	1,135 61	
		$40,568 67

ASHES COLLECTION.

RECEIPTS.

Appropriation, ...	$49,300 00	
Sundry receipts, ...	433 05	
		$49,733 05

EXPENDITURES.

Pay rolls, ...	$43,732 33	
Contracts, ...	890 67	
Provender, ...	1,977 98	
Shoeing, veterinary, and miscellaneous, .	528 40	
Wagon, sleigh, harness, and repairs, . .	873 72	
Tools and supplies, ...	52 47	
Telephone and lighting, . . .	26 20	
South End barn, repairs, ...	31 88	
Covers, ...	31 00	
	$48,144 65	
Unexpended balance, ...	1,588 40	
		$49,733 05

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GARBAGE COLLECTION.

RECEIPTS.

Appropriation,	$18,500 00	
Garbage sold,	3,906 74	
Sundry receipts,	127 25	
		$22,533 99

EXPENDITURES.

Pay roll,	$16,608 34	
Provender,	2,884 94	
Shoeing, veterinary, and miscellaneous,	499 78	
Barn repairs,	414 95	
Wagon, sleigh, harness, and repairs,	731 57	
Tools and supplies,	127 42	
Covers,	59 85	
Pair of mules,	300 00	
Telephone and lighting,	51 19	
General expense,	90	
	$21,678 94	
Unexpended balance,	855 05	
		$22,533 99

COURT STREET PAVING.

Limit of expenditures,	$7,000 00	
Transferred from Contingent Account,	49	
		$7,000 49
Expenditures,		$7,000 49

LOCUST STREET LAYOUT.

Limit of expenditure,	$31,634 00

EXPENDITURES.

Engineering, inspection, etc.,	$1,426 62	
T. J. Hynes & Son, contract for bridge,	3,789 38	
Fred T. Ley & Co., contract Locust street extension,	11,875 50	
	$17,091 50	
Unexpended balance,	14,542 50	
		$31,634 00

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NORTH STREET EXTENSION.

Limit of expenditures previously reported, .	$225,674 37	
Receipts (sale of land), ...	7,606 00	
		$233,280 37

EXPENDITURES.

Previously reported, ...	$201,265 33	
Land, ...	625 00	
Macadamizing, ...	6,621 67	
Miscellaneous, ...	542 18	
	$209,054 18	
Transferred, ...	24,000 00	
	$233,054 18	
Unexpended balance, ...	226 19	
		$233,280 37

PECOUSIC AVENUE, RELOCATION AND IMPROVEMENTS.

Limit of expenditure previously reported, .		$32,117 00

EXPENDITURES.

Previously reported, ...	$25,687 52	
Land taken, ...	693 00	
Miscellaneous, ...	226 65	
	$26,607 17	
Unexpended balance, ...	5,509 83	
		$32,117 00

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WORK ITEMIZED.

BRIDGES.

REPAIRS AND CARE.

	Description of Work.	Cost.
Abbe avenue overhead crossing,	General and railing repairs,	$54 63
Armory street over B. & A. Railroad,	Floor repairs,	153 36
Armory street over N. Y., N. H., & H. Railroad,	Floor repairs,	117 39
Berkshire street, Red House crossing,	Floor repairs,	97 43
Main street, I. O.,	Floor repairs,	53 23
North end, over Conn. River,	Floor repairs and cleaning,	885 84
Old Toll,	Floor repairs and care,	472 16
Plainfield street,	Floor repairs,	257 54
South end, over Conn. River, and N. Y., N. H., & H. Railroad,	Floor repairs,	378 73
St. James avenue,	Floor repairs,	345 09
Sundry,	Small repairs,	23 23
		$2,838 63

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STREET CONSTRUCTION.

Grading and Graveling.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Kensington avenue,	Oakland street easterly,	1,200	4,000	$0 04	$154 82
Pecousic avenue,	just north of Mill River (grading),				338 06
Sumner avenue,	just east of railroad (grading),				231 57
Wellington street,	Wilbraham road southerly,	690	2,300	06	145 87
Wilmont street,	Ranney street westerly,	200	737	11	83 38
		2,090	7,037		$953 70

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STREET CONSTRUCTION.

MACADAM.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Alfred street,		490	1,635	$0 47	$767 09
Berkeley street,		453	1,510	537	810 83
Bowdoin street,	Worthington street to Ingersoll grove,	792	2,640	536	1,414 46
Buckingham place,		275	916	585	535 76
Buckingham street,		2,006	6,678	53	3,543 16
Cherryvale avenue,		687	2,290	607	1,390 72
Chestnut street,	west side Jefferson avenue to Springfield street,	1,665	3,250	784	2,547 17
Cumberland street,	grading for macadam,				161 05
Florentine gardens,		706	3,501	547	1,914 27
Florida street,	Worthington street to Ingersoll grove,	785	2,202	518	1,140 67
Ingersoll grove,	Worthington street to Bowdoin street,	1,395	4,650	50	2,320 98
Magnolia terrace,	Spruceland street to Pineywoods avenue,	556	3,089	50	1,546 39
Marengo park,		1,869	6,230	498	3,105 37
Monmouth street,		1,168	4,000	498	1,991 16
Montmorenci street,		620	2,067	448	926 66
Mulberry street,	School to Union street,	1,322	3,223	506	1,630 17
North street,	Carew to Liberty, completion of work of 1910,				558 21

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STREET CONSTRUCTION.

MACADAM—CONTINUED.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Pineywoods avenue,	Washington road to Florentine gardens,	1,273	4,243	$0 507	$2,149 48
Riverview street,		625	2,094	62	1,300 61
Riverview terrace,		281	721	64	461 81
St. James circle,	St. James avenue to Jennette avenue,	1,131	1,509	633	954 80
Union street,	School to Mulberry,	938	3,128	37	1,155 67
Washington road,	Sumner avenue to Pineywoods avenue,	800	2,667	47	1,256 46
Westernview street,		650	2,167	547	1,185 45
Westford avenue,	Wilbraham road to north curb line Gunn square,	1,380	6,133	44	2,696 24
		21,867	70,543		$37,464 64

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STREET CONSTRUCTION.

PAVING.

Street.	Limits.	Material.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Bridge street,	Completion of work of 1910, Dwight to Chestnut,					$1,968 41
Bridge street,	Extension westerly to Water street,	Bitulithic,	252	895	$2 563	2,294 37
*Court street,	Court Square avenue to Water street,	Bitulithic,	617	2,699	2 69	7,274 57
Liberty street,	Main street easterly,	Bitulithic,	311	1,335	2 64	3,525 91
North Main street,	Bancroft to Calhoun, completion of work of 1910,					8,529 55
North Main street,	Calhoun to Grove,	Wood blocks,	673	3,466	2 90	10,057 22
Pynchon street,	Main to Water,	Bitulithic,	870	2,866	2 54	7,276 53
State street,	Pleasant to Terrence, completion of work of 1910,					291 82
State street,	Terrence to Westminster,	Wood blocks,	689	3,256	3 30	10,754 41
Vernon street,	Main to Water,	Bitulithic,	821	2,047	2 58	5,278 28
Walnut street,	at Ashley street,	Bitulithic,		44	3 00	131 86
			4,188	16,608		$57,382 93

*This work was allowed a special appropriation of $7,000.49.

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STREET MAINTENANCE.

GRAVEL RESURFACING.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Berkshire avenue,	State street to Red House crossing, northerly side,	7,600	10,248	$0 155	$1,589 23
		7,600	10,248	$0 155	$1,589 23

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STREET MAINTENANCE.

MACADAM RESURFACING.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Boylston street,	Emery to Clinton,	303	748	$0 56	$418 88
North Main street,	Wason avenue to Chicopee line (rebuilt),	1,026	3,938	69	2,721 24
State street,	northerly side, City Library, easterly to Federal street,	2,740	7,834	347	2,722 33
Walnut street,	westerly side, Hancock street southerly,	300	400	37	147 84
West street,		1,195	3,872	588	2,268 09
Worthington street,	Spring to Kibbe avenue (completion 1910 work),				1,465 69
		5,564	16,792		$9,744 07

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STREET MAINTENANCE.

PAVING RESURFACING.

BITULITHIC SKIM COATING.

Street.	Area in sq. yds.	Cost.
Maple street,	1,710.69	$1,283 02
Market street,	801.93	601 45
North Chestnut street,	813.30	609 98
North Main street,	1,066.64	799 98
State street,	594.10	445 57
Taylor street,	202.03	151 52
Walnut street,	1,526.02	1,144 51
Worthington street,	119.94	89 96
	6,834.65	$5,125 99

ASPHALT REPAIRS.

Street.		Area in sq. yds.	Cost.
Bridge street,	Rock asphalt,	459.90	$1,057 77
Court street,	Rock asphalt,	39.31	90 42
Elm street,	Rock asphalt,	43.71	100 53
Harrison avenue,	Trinidad asphalt,	88.20	202 86
Sanford street,	Rock asphalt,	3.94	9 06
		635.06	$1,460 64

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STREET MAINTENANCE.

General Repairs.

Street.	Gravel.	Macadam.	Paving.	Receiving Basins.	Miscellaneous.	Total Cost.
Acushnet ave.,				$24 44		$24 44
Albany st.,					$601 67	601 67
Alden st.,		$116 42		3 92		120 34
Allen st.,	$1,304 77				104 95	1,409 72
Arbor st.,				39 85		39 85
Arch st.,		22 06				22 06
Armory st.,	387 45	101 59			11 57	500 61
Bancroft st.,		1 44		62 10		63 54
Bay rd.,	101 53					101 53
Bay st.,	108 88	25 13				134 01
Belmont ave.,	74 72	53 00		191 52	16 13	335 37
Berkshire ave., I. O.,	360 49	13 04			50 49	424 02
Berkshire st., I. O.,	278 51	38 49		36 95	73 10	427 05
Bircham Bend,	58 22					58 22
Birnie ave.,		36 90		9 13	1 75	47 78
Bliss st.,		20 66			1 87	22 53
Boston rd.,	1,367 04				5 19	1,372 23
Bowles st.,	20 96	3 44				24 40
Bridge st.,			$31 69			31 69
Burr st.,	21 43					21 43
Cambridge st.,	108 82					108 82
Carew st.,	109 01	103 44		66 15	12 45	291 05
Cass st.,		37 56				37 56
Center st.,				21 64		21 64
Central st.,	3 00	45 45		113 84		162 29
Chestnut st.,		19 82	219 05		6 84	245 71
Clifford st.,	28 66					28 66
College st.,	36 32					36 32
Colonial ave.,	26 51			7 27		33 78
Colton st.,	36 99					36 99
Commonwealth ave.,				52 30		52 30
Concord terrace,	37 42					37 42
Congress st.,		9 65		17 54		27 19
Cornell st.,	25 11					25 11
Court st.,		29 79	7 30			37 09
Cumberland st.,				31 67	20 87	52 54

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STREET MAINTENANCE.

GENERAL REPAIRS—Continued.

Street.	Gravel.	Macadam.	Paving.	Receiving Basins.	Miscellaneous.	Total Cost.
Dartmouth terrace,	$82 70			$37 15		$119 85
Dawes st.,	136 98					136 98
Dickinson st.,	92 58	$8 44		85 72	$154 81	336 55
Dresden ave.,	37 36					37 36
Dwight st.,			$1,779 87	98 69		1,878 56
Eastern ave.,		23 08				23 08
Edwards st.,		6 88		45 02		51 90
Elliott st.,				35 04		35 04
Emery st.,		68 36				68 36
Farnsworth st.,				34 31		34 31
Fiberloid st., I. O.,	30 26					30 26
Florence st.,	31 03					31 03
Fort st.,			60 16	63 17		123 33
Fort Pleasant ave.,		37 41		3 17		40 58
Franklin st.,		10 16		63 62		73 78
Fulton st.,		34 09	8.93	11 94	11 50	66 46
George st.,	25 77					25 77
Green st.,	47 77					47 77
Grenada terrace,				29 59		29 59
Grove st.,				21 42		21 42
Hamburg st.,		362 89		11 26		374 15
Hampden st.,			54 35			54 35
Hampden st., I. O.,	117 06					117 06
Hampshire st., I. O ,	28 88					28 88
Hancock st.,	28 75	6 88		3 17		38 80
Harriet st.,					23 31	23 31
Harrison ave.,		120 87	3 84	2 83		127 54
Hawley st.,	33 98			18 15		52 13
Hickory st.,		208 59			5 47	214 06
Kensington ave.,	29 43					29 43
King st.,	30 75					30 75
Ledyard st.,	80 35					80 35
Liberty st.,	82 24	341 24	4 77	36 02	8 62	472 89
Locust st.,		126 25		3 23	37 70	167 18
Long Hill st.,	77 70	35 63			32 16	145 49
Lyman st.,			156 68	44 86		201 54
Magazine st.,		13 09		7 23		20 32

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STREET MAINTENANCE.

General Repairs—Continued.

Street.	Gravel.	Macadam.	Paving.	Receiving Basins.	Miscellaneous.	Total Cost.
Main st.,		$67 54	$1,028 12	$40 28	$54 40	$1,190 34
Main st., I. O.,	$62 69	643 71		80 30	102 58	889 28
Maple st.,			44 17	17 93		62 10
Margaret st.,		18 50		20 69		39 19
Marion st.,	65 95					65 95
Market st.,			38 05			38 05
Mason st.,	108 60					108 60
Massachusetts ave.,	65 00					65 00
Massasoit st.,				45 54		45 54
Maynard st.,	26 24					26 24
Mill st.,		10 19			14 22	24 41
Mulberry st.,		6 51		24 50		31 01
Myrtle st., I. O.,	106 17			6 66		112 83
Noel ave.,				88 50		88 50
North st.,		168 56		10 29	231 66	410 51
Northampton ave.,	189 26					189 26
North Main st.,		779 77	84 60	7 92	6 96	879 25
Oak st.,		23 53				23 53
Oak st., I. O.,	38 58	112 97				151 55
Oak Grove ave.,	23 58			23 30		46 88
Oakland st.,				62 33		62 33
Orange st.,	45 98			19 74		65 72
Parker st.,	1,404 79			12 53	23 30	1,440 62
Pasco st., I. O.,	65 76				137 00	202 76
Pecousic ave.,		200 41			117 24	317 65
Pine st.,	3 43			70 53		73 96
Plainfield st.,		68 02	15 54	9 69		93 25
Plumtree rd.,	59 75				40 50	100 25
Pynchon st.,		55 06	1 33	6 12		62 51
Queen st.,	69 97					69 97
St. James ave.,	146 01	6 51		6 78		159 30
Sanford st.,		36 14	1 33			37 47
Shattuck st.,	13 68	7 43				21 11
Sixteen Acre rd.,	466 55				13 50	480 05
Spring st.,		104 69				104 69
State st.,		670 11	75 59	14 95	5 49	766 14
Sumner ave.,	347 26	23 07				370 33
*Sundry sts.,	596 22	3,294 77	51 67	206 68	168 39	4,317 73

*Individual street repairs costing less than $20.00.

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STREET MAINTENANCE.

GENERAL REPAIRS—Continued.

Street.	Gravel.	Macadam.	Paving.	Receiving Basins.	Miscellaneous.	Total Cost.
Taylor st.,		$87 97	$61 14	$14 84		$113 95
Tinkham rd.,	$30 36				$87 96	118 32
Tyler st.,	46 47					46 47
Union st.,		52 40				52 40
Walnut st.,		48 44	74 61			123 05
Water st.,		415 50		42 30	9 56	467 36
Wellesley st.,	1 87			43 38		45 25
West st.,		22 13			24 71	46 84
Westford ave.,	119 07					119 07
White st.,	10 50	36 32	6 59			53 41
Wilbraham rd.,	1,765 24	143 33		212 32	284 23	2,355 11
William st.,	13 07	14 50				27 57
Willow st.,		54 76				54 76
Windsor st.,	28 82			15 20		44 02
Worcester st., I. O.,	428 36	172 32			36 70	637 38
Worthington st.,		209 67	62 16	11 36	3 01	286 20
	$11,838 66	$9,581 57	$8,871 54	$2,443 57	$2,491 85	$30,227 19

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SIDEWALKS AND CURBING.

CONSTRUCTION AND RECONSTRUCTION.

By orders of the City Council.

Street.	Length in feet.	SIDEWALKS.		CURBING. Length in feet.		Order Approved.
		Material.	Description.	4″	6″	
Abbe avenue,	820	Brick,	New,			Sept. 20, 1910.
Andrew street,	291	Tar concrete,	Skim coat,			Sept. 20, 1910.
Benton street,	1,000	Brick,	New,	2,061		July 13, 1911.
Boylston street,	585	Brick,	Relaid concrete curb,		551	June 29, 1910.
Carew street,	470	Cement concrete,	New,			Nov. 15, 1910.
Cass street,	50	Brick,	New,			June 6, 1911.
Chestnut street,	115	Brick,	Relaid,			Nov. 23, 1910.
Dickinson street,				1,629		Sept. 20, 1910.
Foster street,	405	Brick,	New,	33		May 25, 1910.
Franklin street,	602	Brick,	New,			Sept. 27, 1910.
Hamburg street,	148	Tar concrete,	New,			June 29, 1910.
Hancock street,	225	Brick,	New,	752		July 12, 1910.
Hancock street,	138	Brick,	Relaid,			July 12, 1910.
Kensington avenue,			Concrete curb,	1,986		July 12, 1910.
Lester street,	250	Cement concrete,	New,			July 13, 1911.

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SIDEWALKS AND CURBING—Continued.

Street.	Length in feet.	SIDEWALKS. Material.	SIDEWALKS. Description.	CURBING. Length in feet. 4″	CURBING. Length in feet. 6″	Order Approved.
Liberty street,	2,797	Brick,	Relaid,			June 1, 1910.
North street extension,			Granite,		419	Sept. 2, 1910.
			Concrete curb,		2,014	
North street extension,	1,929	Cement concrete,	New,			July 13, 1911.
North Main street,	941	Cement concrete,	New,		881	Sept. 20, 1910.
Orchard street,	2,031	Brick,	New,	2,083		Oct. 13, 1910.
State street,	54	Tar concrete,	Skim coat,			June 6, 1911.
Sumner avenue,	383	Cement concrete,	New,			July 13, 1911.
Wilmont street,	824	Tar concrete,	Skim coat,			Aug. 8, 1911.
	675		New,			
	14,733			8,544	3,865	

No sidewalk construction was ordered by abutters during the past fiscal year but 1,764 feet of four-inch curbing have been set by orders of abutters.

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STREETS MADE PUBLIC.

BY ORDER OF THE CITY COUNCIL.

Name.	Limits.	Length in feet.	Width in feet.
Belmont place,	Belmont avenue southerly,	215	47
Berendo street,	Grenada terrace to Alderman street,	870	60
Birnie avenue extension,	Arch street to Plainfield street,	839	36
Genesee street,	Franklin street northerly,	219	48
Ledyard street,	Armory street to Liberty street,	565	50
Locust street extension,	Belmont avenue to Dickinson street,	2,415	58
Mill street extension,	Main street to Pecousic avenue,	588	60
Orleans court,	Oak street to Orleans street,	338	16-20-13
Sorrento street,	Sumner avenue to Alderman street,	870	60
St. James circle,	St. James avenue to Jennette avenue,	1,131	50
	1.429 miles.	7,550	

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STREETS RELOCATED AND WIDENED.

BY ORDER OF THE CITY COUNCIL.

Name.	Limits.	Length in feet.	Width in feet.
Fulton street,	Plainfield street southerly,	227	40.5
Longhill street,	Edgeland avenue southerly,	364	66-74
Longhill street,	Cherryvale avenue southerly,	628	74
Main street and Longhill street,	both corners,	191	
Pecousic avenue and Main street,	both corners,	184	
		1,594	

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INVENTORY.

STREET AND SEWER DEPARTMENTS.

Lands.	
City yard, Logan street,	$8,500 00
City yard, Summer street,	30,000 00
Gravel bank, Five Mile pond,	100 00
Gravel bank, Boston road,	75 00
Gravel bank, Island pond,	350 00
Trap rock quarry, Westfield,	250 00
Buildings and structures.	
Barn, wagon house, and shed,	16,040 00
Scales,	318 00
Trap rock bins and trestle,	9,000 00
Steam roller house,	800 00
Horses, wagons, etc.	
Three automobiles,	2,200 00
Fifteen horses,	2,575 00
Harness, blankets, etc.,	364 67
Fifteen wagons and carts,	1,435 00
Ten sleighs, sleds, etc.,	405 00
Provender,	1,404 63
Special tools and machines.	
Horse rollers,	155 00
Six steam rollers,	8,000 00
Concrete mixer,	900 00
Hoisting engine,	600 00
Macadam scraper,	165 00
Road machines,	100 00
Scarifier,	425 00
Sewer pumps and portable boiler,	260 00
Street sweepers and cleaning equipment,	1,755 22
Six wheel scrapers,	110 00
Street and sewer materials.	
Castings and patterns,	549 80
Coal, oil, tanks, etc.,	101 96
Lumber,	1,486 43
Lumber—contract for North and South End bridges,	9,963 59
Sand and sand tickets,	64 00
Trap rock,	1,151 66

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Paving, brick and wood blocks,	$3,336 00
Vitrified clay pipe,	314 66
Street watering equipment.	
Twenty-four wagons,	4,395 00
Two tanks for road oil,	1,507 82
Tools and supplies,—miscellaneous.	
Lanterns and globes, etc.,	98 90
Machine shop stock and tools,	1,025 00
Sidewalk materials and tools,	2,660 65
Miscellaneous materials and tools,	3,117 91
Office furniture and equipment,	616 00
	$116,675 89

ASHES AND GARBAGE COLLECTION.

Land and buildings.	
State street, land and buildings,	$6,000 00
South End barn,	800 00
Horses, wagons, etc.	
Twenty-three horses,	2,700 00
Two mules,	300 00
Twenty-one wagons,	2,280 00
Seventeen sleighs,	1,300 00
Harness, blankets, etc.,	470 00
Provender,	931 00
Tools and supplies.	
Fifty-two ash carriers,	52 00
Fifty-seven garbage pails,	88 25
Twenty wagon covers,	48 00
Small tools,	50 00
	$15,019 25

GENERAL DESCRIPTIONS.

Attention is called to tables in this report showing costs of the work done by the Department during the past fiscal year in maintenance and construction of streets, street cleaning, watering streets or dust laying, sidewalk construction and repairs, and the collection of ashes and garbage. The expenditures of

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above mentioned accounts, together with costs of street construction under special accounts, amount to $455,476.51.

ORDERS OF THE CITY COUNCIL.

In accordance with the revised ordinances of the City of Springfield, Section 3, Chapter 19, as amended July 28, 1910, the Board of Public Works has been advised of the orders of the City Council, relating to street acceptances and changes of grade and alignment of streets, which have been carried out as follows:—

North street, Liberty to Carew, completion of construction;
Wilmont street, at corner of Dickinson street, relaid out;
Locust street, from Belmont avenue to Dickinson street, laid out and established (construction under contract); and St. James Circle, laid out and established. (Twelve feet through center of roadway has been macadamized.)

MACADAM.

A total of $37,464.64 has been expended for new macadam construction. All of our macadam streets constructed the past season have been built on the water-bound construction plan. This, I think, should be discontinued and some form of bituminous binder used. While the cost would be more per square yard the benefit derived would be far greater, as it would do away with all mud and greatly reduce the amount of dust, giving a surface which has the appearance of asphalt, and should wear for a number of years.

During the ensuing year an additional number of gravel streets should be replaced by macadam.

TAR AND ASPHALT SURFACING.

The treatment of macadam streets with tar and asphalt, as started three years ago, has not been continued this year. This

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should be done, as it adds greatly to the life and durability of the street.

PAVING.

A number of streets in the center of the city have been paved during this year. Pynchon street; Court street from Court Square to Water street; Vernon street; Bridge street from the end of the bitulithic to Water street; and Liberty street from Main street to the depot entrance have been paved with bitulithic. This will reduce the amount of dirt carried on to Main street every day by traffic and greatly improve the appearance of these streets, which can now be swept and kept in a clean condition.

The wood block paving has been extended on North Main street from Calhoun to Grove street, and the paving should be extended still further on this street. In the paving of State street, this season, a somewhat new plan was adopted in that the wood blocks were laid from the track to the curbing only, not including the space between the tracks. This paving should be extended to the bitulithic at Sherman street.

The Street Railway Company having double-tracked Belmont avenue hill, this Department has laid granite blocks between, and eighteen inches outside, the tracks of that Company, this being done at the expense of the Street Railway Company. This same style of paving, I believe, should be extended to the curbing during the coming year, thus completing a permanent and desirable paving for Belmont avenue hill.

There are a number of streets in the city where the travel is too heavy for macadam, which should be replaced with permanent paving. The amount of $57,382.93 was expended for permanent paving this year.

BRIDGES.

During this season small repairs have been made to the Old

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Toll Bridge. It will be necessary to replank the southerly roadway during the ensuing year.

A contract was made near the close of this year with the E. A. Blodgett Lumber Company for furnishing two-inch spruce for the replanking of the North End Bridge. This work will be completed during the early part of next season.

A contract has been made with the United States Wood Preserving Company of New York City for furnishing creosoted lumber and wood blocks for the South End Bridge. This work will greatly reduce the expense of maintenance and repairs of the bridge for a number of years. All work on these bridges will be done by regular employees of the Street Department, by day labor.

STREET WATERING AND DUST LAYING.

This Department is required, according to orders of the City Council, to lay the dust on 95.87 miles of streets. This work has been done by carts owned by the city; by electric cars of the American Car Sprinkler Company of Worcester and an automobile sprinkler owned by the same company and both operated under contract. The latter appliance was used in oiling Berkshire street, Indian Orchard, from Pine Point to Chestnut street.

Very little water has been used in street sprinkling this season, except on paved streets, as we have endeavored to lay the dust by the use of oil. Oil has proved very satisfactory, not only as a dust-layer but as a preservative of gravel and macadam streets.

The oiling of Boston Road and Berkshire street,—gravel streets,—was very satisfactory as it not only kept down the dust but saved quite a considerable amount on repairs to these roads. Automobile travel strips the top from gravel streets and as oil not only lays the dust but preserves the wearing surface of the road, I would recommend more extended use of oil the coming season.

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STREET CLEANING.

Our paved streets have been cleaned by means of a rubber squeegee machine and by three two-horse sweepers. The squeegee has been used on the wood blocks, asphalt and bitulithic streets and the sweepers on the remainder of the paved streets. All cleaning of paved streets has been done during the night time.

By the use of oil on macadam streets we have been able to use machine sweepers on these streets, thus making the expense less than it would have been if hand sweepers had been used.

ASHES AND GARBAGE COLLECTION.

Ashes and garbage have been collected in the same manner as heretofore. An improved method of disposing of both ashes and garbage should soon be adopted and I recommend that a new system of ashes and garbage disposal be decided upon in the near future.

ACKNOWLEDGMENTS.

I desire to thank Mayor Edward H. Lathrop, Alderman Edward S. Goldthwaite, and Councilman Edward T. Broadhurst, members of the Board of Supervisors of Highways and Bridges, for their co-operation and courtesies extended to me in my endeavor to perform the duties which have devolved upon me since the resignation of Mr. Arthur A. Adams as superintendent of streets.

Respectfully submitted,

A. H. WOODWARD,

Acting Superintendent of Streets.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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MACADAM REPLACED BY PAVING.

STREET.	Limits.	Length in feet.	Area in sq. yds.
Bridge street,	Water street easterly,	250	1,138
Court street,	Court Square avenue to Water street,	594	1,980
Liberty street,	Main street easterly,	311	1,335
Pynchon street,		868	2,810
Vernon street,		823	1,952
North Main street,	Calhoun to Grove street,	673	3,466
State street,	Terrence to Westminster street,	639	3,256
		4,158	15,937

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TABLE OF MACADAMIZED STREETS.

*Includes Macadam laid by Spfd. Street Ry. Co.
**Macadam laid by Spfd. Street Ry. Co.
†Macadam laid by private parties.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Abbe ave. bridge app.,		872	2,325
Acushnet avenue,		1,088	3,385
Adams street,		1,003	3,326
†Agawam street,	Pecousic avenue to South st.,	230	383
Alden street,		2,776	*9,306
Alexander street,		414	1,380
Alfred street,		490	1,635
Allen street,	Mill street to N. E. R. R.,	4,017	*13,798
Allendale street,		663	2,094
Amherst street,	Harvard to Monmouth,	1,233	4,069
Andrew street,	State to Dawes,	1,323	4,228
Arbor street,		437	1,222
Arch street,	Main street westerly,	410	1,366
Armory street,	Federal st. to Warwick ave.,	2,305	7,688
Armory street,	Liberty to Carew,	1,570	5,203
Ashley street,		1,378	4,592
Auburn street,		787	1,942
Autumn street,		197	504
Avon place,		644	2,538
†Avon place,		67	386
Bancroft street,		1,435	4,865
Banks place,		225	536
Bay street,	St. James ave. to Cambridge street,	4,469	*14,853
Beaumont street,	Dickinson st. to Belmont ave.,	689	2,295
Beech street,		528	1,303
Beechwood street,	Sumner ave. to Spruceland st.,	501	1,670
Belmont avenue,	Woodside ave. to Oakland st.,	2,599	7,043
†Belmont avenue,	Oakland st. to Sumner ave., easterly side,		1,905
Belmont avenue,	Sumner avenue to White st.,		**3,700
Belmont avenue,	South side, Garfield street to Sumner avenue,	1,624	4,170

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Berkeley street,		453	1,510
Berkshire street,	State to Oak, I. O.,		**31,291
Berkshire street,	Oak to Chestnut, I. O.,	1,400	6,533
Birnie avenue,	Greenwich st. to Wason ave.,	3,369	8,077
Bliss street,	Main street to N. Y., N. H. & H. R. R.,	1,229	3,956
Bond street,		1,629	5,112
Bowdoin street,	St. James avenue to Ingersoll grove,	1,944	6,477
Bowles street,	Bay to McKnight,	750	2,500
Boylston street,		864	1,921
Bradford street,		862	2,935
Broad street,		959	3,177
Brookline avenue,		615	2,050
Buckingham place,		275	916
Buckingham street,		2,006	6,678
Butler street,		1,525	2,885
Byers street,	State to Frost,	480	1,193
Carew street,	Main to point near Bartlett,	2,618	7,672
Calhoun street,		1,129	3,435
Cass street,	Liberty to Butler,	1,762	5,407
Catharine street,	Bay to Dartmouth,	150	493
Cedar street,		1,962	6,655
Central street,		4,903	12,832
Central street,	Cedar to Mill,		**2,705
†Chapin terrace,	Chestnut to Marvin,	601	3,112
Charles street,	Liberty to Franklin,	618	1,888
Chase avenue,		583	1,943
Cherryvale avenue,		687	2,290
Chestnut street,	State to Worthington, and Jefferson avenue to Springfield street,	4,829	11,096
Chestnut street,	Allendale to Springfield,		**2,908
Church street,		832	2,553
Churchill street,		575	1,919

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Clark street,		619	1,100
Clarendon street,	Bay to 200 feet north of Worthington,	1,452	4,834
Clinton street,		703	1,842
College street,		527	1,522
Congress street,		1,550	3,918
Cross street,	Willow to Maple,	608	1,416
Crystal avenue,		930	3,100
Cumberland street,	North to Chestnut,	426	1,420
Dale street,		812	2,051
Dartmouth street,		1,132	5,159
Demond avenue,		859	2,863
Dickinson street,	Marengo park to Sumner ave.,	3,074	8,540
Dorchester street,		567	1,887
Douglas street,		540	1,800
Eagle street,		556	1,855
East Court street,	Market to Dwight,	369	855
East Hooker street,		679	1,786
Eastern avenue,		4,516	*15,297
Edwards street,		675	2,219
Elliot street,		1,007	3,342
Elm street,	N. Y., N. H. & H. R. R. to Court Square,	818	2,089
Elmwood street,		886	2,738
Emery street,		648	2,106
Essex street,		1,606	5,143
Euclid avenue,		1,169	3,896
Everett street,		1,500	4,859
Fairfield street,		882	2,940
Farnsworth street,	Width of 20 feet,	513	1,710
Federal street,	Pearl to Worthington,	353	1,370
Firglade avenue,		1,049	3,490
Fisk avenue,		1,682	6,240
Florentine gardens,		706	3,501
Florence street,	Walnut to Pine,	1,582	5,278
Florida street,	Bay to Ingersoll grove,	2,192	6,868

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Forest street,		784	2,502
Forest Park avenue,	Sumner avenue to Forest st.,	752	3,846
Forest Park avenue,	Fort Pleasant ave. to Forest street, 22½ feet in width,	1,760	4,475
Fort Pleasant avenue,	west side,	2,794	10,138
Fort Pleasant avenue,	east side,	2,674	7,252
Franklin street,	Main to Webster,	3,613	12,386
Franklin street,	Webster to Genesee, width of 20 feet,	1,139	3,797
Fremont street,		778	2,593
Fulton street,	Plainfield to Vine,	2,444	8,087
Gardner street,	Water to Main,	1,114	3,713
Garfield street,		1,577	5,220
Genesee street,	width of 20 feet,	276	821
George street,	Maple easterly,	110	647
Grace street,		354	885
Grant street,		577	1,603
Gray's avenue,		560	1,300
Greenleaf street,		740	3,098
Greenwich street,	North Main to Becket,	643	2,143
Greenwood street,		1,561	5,025
Grove street,		612	1,734
Grosvenor street,		738	2,286
Hall street,		992	3,307
Hamburg street,	width of 20 feet,	574	1,786
Hancock street,	Clark to State,	3,989	*13,479
Harriet street,		816	2,720
Harvard street,	Yale to Cornell,	1,565	5,206
Hawthorn street,		540	1,374
Hebron street,		698	2,204
Heywood street,	Liberty to Warwick ave.,	250	833
Hickory street,	Walnut to Sheffield st., and Alden street easterly,	4,710	11,589
High street,		2,563	5,544
Holyoke street,		776	2,001
Homer street,		582	1,940

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Howard street,	N. Y., N. H. & H. R. R. to Main,	1,277	4,326
Hubbard avenue,		568	1,063
†Huntington street,		643	2,143
Ingersoll grove,	Worthington st. to Bowdoin,	1,395	4,650
Ingraham avenue,		258	462
James street,		928	2,356
Jefferson avenue,		1,275	6,375
John street,		640	2,136
Keith street,		1,107	3,690
Kenwood park,		721	3,888
Kibbe avenue,		213	710
King street,	Walnut to Highland division N. Y., N. H. & H. R. R.,	2,568	*8,484
Lafayette street,		568	1,865
Lebanon street,		1,926	5,233
Lexington avenue,		622	1,659
Leyfred terrace,		625	2,102
Liberty street,	Main street easterly, and Wolcott to Carew,	3,497	8,285
Liberty street,	Heywood avenue to Chicopee line,		**9,920
Lillian street,		387	989
Linden street,		1,287	5,148
Litchfield street,		384	1,280
Locust street,		793	2,501
Lombard street,		590	1,677
Longhill street,	Sumner ave. to Warner place,	475	2,321
Longhill street,	Sumner ave. to Washington boulevard,	1,741	6,837
†Longmeadow street,	Longhill street to Longmeadow line,	2,930	7,813
Loring street,		707	2,294
Madison avenue,		529	1,657
Magazine street,	Lincoln to Armory,	784	2,434
Magnolia terrace,	Sumner ave. to Pineywoods ave.,	1,141	6,209

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Main street,	Mill river to Locust street,	980	5,864
Main street, I. O.,	Front to Parker,	5,563	19,691
Main street, I. O.,	Front st. to Ludlow bridge,		**11,127
Maple street,	top of hill to George street,	1,565	4,572
Mapledell street,		972	3,239
Maplewood terrace,	south side, Fort Pleasant ave. to Forest Park avenue,	1,301	3,075
Maplewood terrace,	north side, Forest Park ave. to Riverview terrace,		1,874
Marble street,		1,074	3,508
Marengo park,		1,869	6,230
Margaret street,	Water to Main,	842	2,807
†Marvin street,	Pratt st. to Chapin terrace,	430	1,440
Massasoit street,	Carew to Prospect,	851	2,803
Mattoon street,		524	1,775
McKnight street,	Sherman to Bowles,	532	1,773
Medford street,	N. Main st. to Birnie ave.,	624	2,080
Merwin street,		713	2,377
Mill street,	Main to Dickinson,	3,250	13,564
Monmouth street,		1,168	4,000
Monroe street,	Hancock to Eastern avenue,	1,345	3,736
Montmorenci street,		620	2,067
Morgan street,		852	2,914
Morris street,		1,022	3,031
Mountainview street,		682	2,330
Mulberry street,	Maple to Union street,	2,015	5,706
Murray Hill avenue,		600	2,000
Myrtle street,		484	997
North street,	Liberty to Cumberland,	5,729	19,944
Northampton avenue,	Wilbraham road to Beverly street,	1,229	4,096
North Main street,	Grove to Chicopee line,	3,894	20,264
Norwood street,		1,117	2,911
Oak street,		1,344	4,136
Oak street, I. O.,	Berkshire to Water,	1,457	5,731
Oak street, I. O.,	Berkshire to Main,		**2,078

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Oakland street,	Allen to Sumner avenue,	4,153	14,808
Olive street,		478	1,248
Orleans street,		1,509	4,293
Osgood street,		890	2,948
Palmer avenue,		991	3,177
Park street,	Main to Willow and foot of hill to Maple,	865	2,545
Parkwood street,		450	1,500
Patton street,		1,681	5,438
Pearl street,	Chestnut to Byers,	1,220	3,513
Pecousic avenue,	Gardner street to Mill River bridge,	1,925	5,775
Pecousic avenue,	Mill River bridge to Main street,	350	972
Pecousic avenue,	Main street to Longhill,	3,625	10,663
Pendleton avenue,		2,582	6,545
Pine street,		4,420	14,344
Pineywoods avenue,	Washington road to Florentine gardens,	1,273	4,243
Plainfield street,	B. & M. R. R. bridge to Wason avenue,	5,895	14,716
Plainfield street,	Washburn to Wason avenue,		**3,953
Pleasant street,		428	1,026
Plymouth street,		479	1,597
Portland street,	N. Main to Birnie avenue,	610	2,033
†Pratt street,	Chestnut to Marvin,	600	2,000
Princeton street,	Bay to St. James avenue,	1,509	6,329
Princeton street,	Bay to St. James avenue,		**1,496
Prospect street,	Massasoit to Carew,	817	2,996
Quincy street,	Oak to Eastern avenue,	2,704	7,780
Randolph street,	Sumner ave. to Forest Park avenue,	916	3,053
Reed street,		660	2,493
Ringgold street,		730	2,432
Riverview street,		625	2,094
Riverview terrace,		281	721

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Rowland avenue,	Plainfield street to Abbe ave. bridge approach,	690	1,674
Rutland avenue,		277	926
Rutledge avenue,		516	1,599
Salem street,	Mattoon to Spring,	522	1,426
Sanford street,	Market to Dwight,	367	1,278
Sargeant street,		860	3,126
School street,		1,415	4,597
Seventh street,		822	2,529
Sharon street,		1,200	3,895
Sheldon street,	Birnie avenue to N. Main,	651	2,027
Sherman street,	State to Clarendon,	1,623	5,394
South street,	Agawam street to Mill river,	1,868	6,878
Spring street,		2,373	7,322
Springfield street,	Chicopee line southwesterly,	3,700	7,400
Springfield street,	Chestnut street northeasterly,	400	1,355
Springfield street,	Chestnut to dingle, and Hamburg street to Chicopee line,		**1,242
Spruce street,		699	1,737
Spruceland avenue,		1,370	4,566
State street,	Water st. easterly, City Library to Federal, Westminster st. to Sherman, and Highland Div. N.Y., N.H.& H.R.R. to Berkshire street,	16,581	57,369
Stearns square,	east of park,	259	461
Stebbins street,	State to Quincy,	973	3,243
St. James avenue,	State to Highland division N. Y., N. H. & H. R. R.,	5,470	15,557
St. James avenue,	State to end of track,		**5,213
St. James circle,	St. James avenue to Jennette avenue,	1,131	1,509
Stockbridge street,		635	1,617
Summer street,	Federal to Armory,	378	1,260

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
Sumner avenue,	Longhill street to Forest Park entrance,	3,215	15,227
Sumner avenue,	Park entrance to Lenox street, southerly side,	1,751	3,935
Sumner avenue,	Lenox st. to east line Dickinson street,	484	4,254
Sumner avenue,	Longhill to White,		**11,631
Taylor street,		418	1,310
Temple street,		958	2,570
Tenth street,		1,577	4,451
Terrence street,		714	2,380
Thomas street,		583	1,945
Thompson street,		2,098	6,606
Tyler street,	Oak to Hancock,	1,346	4,002
Union street,	N. Y., N. H. & H. R. R. to ft. of hill, Maple to Eastern ave.,	7,440	25,077
Vine street,		745	1,892
Vinton street,		612	2,465
Walnut street,	Mill to Hancock,	1,457	*2,341
Waltham avenue,		985	2,628
Warner place,		691	2,152
Warriner avenue,		450	1,601
Warwick street,	Heywood street easterly,	811	2,703
Washington road,	Maplewood terrace to Pineywoods avenue,	1,083	3,610
Wason avenue,	B. & M. R. R. to N. Main st.,	505	1,718
Wason avenue,	B. & M. R. R. to N. Main st.,		**449
Water street,		5,145	16,525
Waverly street,		850	2,910
Webster street,		606	2,020
West street,		1,195	3,872
Westernview street,		650	2,167
Westford avenue,		1,380	6,133
Westminster street,		1,911	6,388
White street,	Allen to Longmeadow line,	8,288	19,446

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TABLE OF MACADAMIZED STREETS.—CONTINUED.

NAME OF STREETS.	Limits.	Length in feet.	Area in sq. yds.
White street,	Orange to Sumner avenue, and Belmont avenue to Longmeadow line,		**3,774
Wight place,		388	692
Wilbraham avenue,		2,046	6,820
Wilbraham road,	State to Homer,	2,579	11,427
Wilbraham road,	southerly side, Homer to Benton,	2,600	5,142
Wilbraham road,	Westford avenue to point 660 ft. east of Benton street,		**3,682
Wilcox street,	Main to 385 ft. westerly from Water,	1,307	4,000
William street,	N. Y., N. H. & H. R. R. to Main,	1,368	4,359
Willow street,	Union to State,	895	2,493
Winthrop street,		659	2,397
Woodside terrace,	Belmont ave. to Forest Park ave.,	463	1,543
Woodside terrace,	Belmont avenue easterly,	474	1,580
Worcester street, I. O.,	Pine to Fiberloid Co.'s driveway, 18 ft. in width,	4,994	10,988
Worthington street,	Spring street easterly,	1,259	4,197
Worthington street,	Sackett's pl. to Federal st.,	1,121	2,861
Worthington street,	Armory st. to St. James ave.,	2,514	7,961
Yale street,	Dartmouth to Monmouth,	1,493	5,142
York street,		1,000	2,997
Total,	73.79 miles.	389,586	1,335,033

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TABLE OF PAVED STREETS.

Name	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Barnes street,		Bitulithic,	178	552	1909
Belmont avenue,	Hall street westerly,	Catskill blocks,	1,362	1,211	1901
Belmont avenue,	Hall street to Oakland,	Metropolitan blocks,	1,023	914	1903
Birnie avenue,	Hooker street northerly,	Johnsonburg blocks,	145	483	1906
Bridge street,	Main to Dwight,	Rock asphalt,	688	2,525	1900
Bridge street,	Dwight to Chestnut,	Creo-resinate wood bl'ks, 3″ x 3½″ x 8″,	122	446	1910
		Asphalt blocks, 5″ x 12 ″ x 3″,	195	712	1910
Bridge street,	Main street, 493 feet westerly,	Bitulithic,	493	1,746	1905
Bridge street,	extension to Water street,	Bitulithic,	252	895	1911
Bridge street,	Water street to Old Toll bridge,	Granite blocks,	249	713	1907
Catharine street,	State to Bay,	Syracuse brick,	1,722	5,691	1900
Charles street,	Liberty to land of B. & A. R. R.,	Granite blocks,	150	376	1903
Chestnut street,	Worthington to Lyman,	Granite blocks,	472	1,673	1895
Chestnut street,	Lyman to B. & A. R. R.,	Granite blocks,	256	1,471	1889
Chestnut street,	B. & A. R. R. to Linden,	Granite blocks,	1,640	5,235	1892
Chestnut street,	Linden to Everett,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	419	1,438	1909
Chestnut street,	Everett to Carew,	Granite blocks,	354	718	1893
Chestnut street,	Carew to Allendale,	Syracuse brick,	1,015	3,432	1900

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Chestnut street,	Allendale to Jefferson avenue,	Bitulithic,	825	2,898	1905
Court street,	Main to Court Square avenue,	Rock asphalt,	317	1,149	1897
		Syracuse brick,	——	174	1897
		Syracuse brick,	——	128	1907
Court street,	Court Square avenue to Water st.,	Bitulithic,	617	2,699	1911
Court Square avenue,	Court to Elm,	Rock asphalt,	193	503	1897
		Syracuse brick,	——	330	1897
Cypress street,	Main street westerly,	Granite blocks,	459	1,700	1904
Cypress street,	Boylston to Fulton,	Granite blocks,	216	848	1905
Dwight street,	State to Lyman,	Syracuse brick,	2,324	9,905	1896
East Court street,	Main to Market,	Rock asphalt,	117	297	1900
Elm street,	Main to Court Square avenue,	Rock asphalt,	343	949	1897
		Syracuse brick,	——	330	1897
Ferry street,	Main street to foot of hill,	Bitulithic,	1,389	3,597	1910
Fort street,	Main to Water,	Granite blocks,	670	1,770	1895
Fulton street,	Cypress to Vine,	Granite blocks,	1,125	3,006	1906
Hampden street,	Main street westerly,	Bitulithic,	212	821	1904
Hampden street,	completion, Main to Water,	Bitulithic,	394	1,539	1905
Harrison avenue,	Main to Dwight,	Trinidad asphalt,	586	2,247	1896
Hillman street,	Main to Dwight,	Bitulithic,	648	2,025	1906

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
King street,	St. Ry. turnout,	Creo-resinate wood bl'ks, 8″ x 3½″ x 6″ to 10″,	317	1,023	1908
Liberty street,	Main street, easterly,	Bitulithic,	311	1,335	1911
Liberty street,	Chestnut to Cass,	Syracuse brick,	1,399	4,571	1900
Liberty street,	Cass to Heywood avenue,	Syracuse brick,	1,147	3,971	1901
Lyman street,	Main to Chestnut,	Granite blocks,	1,305	4,599	1889
Lyman street,	Chestnut street, easterly,	Granite blocks,	503	2,095	1908
Lyman street,	extension easterly to Spring st.,	Granite blocks,	228	949	1909
Main street,	Locust to Marble,	Syracuse brick,	840	4,381	1897
Main street,	Marble to William,	Syracuse brick,	1,762	8,807	1896
Main street,	William to Bliss,	Creo-resinate wood bl'ks, 8″ x 3½″ x 6″ to 10″,	1,150	6,460	1906
Main street,	Bliss to State,	Syracuse brick,	241	1,355	1898
Main street,	State to Worthington,	Creo-resinate wood bl'ks, 8″ x 3½″ x 8″,	1,899	10,798	1904
Main street,	Worthington to Hampden, west side,	Creo-resinate wood bl'ks, 8″ x 3½″ x 8″,	382	1,183	1904
Main street,	Worthington to Hampden, east side,	Creo-resinate wood bl'ks, 4″ x 4″ x 8″,	——	962	1903
Main street,	Hampden to Lyman,	Creo-resinate wood bl'ks, 4″ x 4″ x 8″,	153	775	1903

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Main street,	Lyman to Liberty,	Creo-resinate grooved wood bl'ks, 4″ x 4″ x 8″,	484	2,780	1903
Main street,	Liberty to Sharon, east side,	Creo-resinate wood bl'ks, 4″ x 4″ x 8″,	453	1,135	1903
Main street,	Liberty to Sharon, west side,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	——	1,487	1907
Main street,	Sharon to near Franklin and Emery,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	509	3,103	1907
Main street,	near Franklin, east side,	Syracuse brick,	36	144	1907
Main street,	Franklin to Carew, east side,	Syracuse brick,	1,302	4,605	1897
Main street,	Emery to Sargeant, west side,	Catskill blocks,	1,447	5,449	1901
Main street,	crossing opposite Auburn street,	Catskill and Metropolitan blocks,	——	163	1903
Maple street,	Central to High,	Bitulithic,	1,563	5,665	1904
Maple street,	High to State,	Bitulithic,	593	2,580	1905
Market street,	State to Harrison avenue,	Bitulithic,	968	1,887	1906
North Main street,	Plainfield to Morgan,	Bitulithic,	730	4,485	1906
North Main street,	Morgan to Bancroft,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	879	4,544	1909
North Main street,	Bancroft to Calhoun,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	839	4,210	1910

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
North Main street,	Calhoun to Grove,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	673	3,466	1911
North Main street,	at Wason avenue,	Syracuse brick,	——	196	1908
Plainfield street,	Sargeant to Fulton,	Syracuse brick,	1,710	10,249	1902
Pynchon street,	Main to Water,	Bitulithic,	870	2,866	1911
Railroad street,	Main to Water,	Granite blocks,	516	1,539	1906
Sanford street,	Main to Market,	Rock asphalt,	102	207	1900
State street,	Main street, westerly,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	598	2,357	1909
State street,	Main to Dwight,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	478	2,403	1908
State street,	Dwight to City Library,	Granite blocks,	541	1,631	1890
State street,	Dwight to Chestnut (widened),	Granite blocks,	——	217	1896
State street,	Federal to Oak,	Syracuse brick,	847	4,590	1897
State street,	Oak to Stebbins,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	762	3,031	1909
State street,	Pleasant to Terrence,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	386	1,497	1910
State street,	Terrence to Westminster,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	639	3,256	1911
State street,	at Walnut,	Syracuse brick,	——	278	1908

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
State street,	at St. James avenue,	Syracuse brick,	——	183	1907
State street,	Sherman to Highland Div., N. Y., N. H. & H. R. R.,	Bitulithic,	820	4,352	1905
Summer street,	Spring to near Autumn,	Granite blocks,	567	1,512	1907
Summer street,	Autumn to Kibbe avenue,	Granite blocks,	1,259	4,029	1895
Summer street,	Kibbe avenue to point 85′ west of Federal,	Granite blocks,	787	2,635	1901
Taylor street,	Main to Dwight,	Bitulithic,	770	2,580	1904
Townsley avenue,		Bitulithic,	142	214	1908
Vernon street,		Bitulithic,	821	2,047	1911
Walnut street,	State to Union,	Syracuse brick,	638	2,144	1899
Walnut street,	Union to Pendleton avenue,	Syracuse brick,	873	3,140	1900
Walnut street,	Pendleton ave. to Lebanon st.,	Bitulithic,	1,195	3,888	1905
Walnut street,	Lebanon to Hancock,	Bitulithic,	1,005	3,334	1906
Walnut street,	at Ashley,	Bitulithic,	——	44	1911
White street,	Allen to Orange,	Syracuse brick,	1,610	2,400	1902
Worthington street,	Main to Dwight,	Syracuse brick,	739	2,544	1896
Worthington street,	Dwight to Fairbanks place,	Syracuse brick,	1,060	3,869	1901
Worthington street,	Fairbanks place to east line of Spring,	Syracuse brick,	269	1,003	1903
Worthington street,	Main to Broadway,	Bitulithic,	404	1,418	1905

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Worthington street,	Broadway to Water street,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	299	1,061	1909
Worthington street,	at Sackett place,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	265	886	1908
Worthington street,	Federal to Armory,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	374	1,312	1908
Total,			64,629	244,475	

RECAPITULATION.

Material.	Length in feet.	Length in miles.	Area in sq. yds.	Material.	Length in feet.	Length in miles.	Area in sq. yds.
Bitulithic,	15,200	2.879	53,417	Metropolitan blocks,	1,023	.194	996
Catskill blocks,	2,809	.532	6,741	Rock asphalt,	1,760	.333	5,630
Creo-resinate wood blocks,	12,080	2.287	59,613	Syracuse brick,	19,534	3.7	77,920
Granite blocks,	11,297	2.140	36,716	Trinidad asphalt,	586	.111	2,247
Johnsonburg blocks,	145	.027	483	Asphalt blocks,	195	.037	712
				Total,	64,629	12.24	244,475

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FORTY-THIRD ANNUAL REPORT

OF THE

SEWER DEPARTMENT.

SPRINGFIELD, MASS., December 28, 1911.

To the Mayor and Board of Aldermen:—

I have the honor of presenting statements of receipts and expenditures of the Sewer Department, and descriptions of work done during the fiscal year ending December 1, 1911.

RECEIPTS.

SEWERS AND DRAINS.

Appropriation,		$35,000 00	
Sewer fees,	Entrances,	13,173 27	
	Building private drains,	6,396 09	
Departments and private parties, bills rendered,		408 03	
			$54,977 39

EXPENDITURES.

Building private drains,	$5,424 93
City teams and automobile, uncredited balance,	1,233 17
City yard,	1,293 97
Engineering,	495 71
Foremen's winter and holiday pay,	165 13
Amount carried forward,	$8,612 91

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Amount brought forward,		$8,612 91	
Materials on hand,		317 92	
Office and general expenses,		1,172 59	
Refunds on account of fees for sewer entrances,		25 00	
Refunds—unexpended balances on deposits for building private drains,		544 90	
Salary of assistant superintendent,		2,000 00	
Sewers,	Cleaning,	2,570 77	
	Construction,	33,372 93	
	Flushing,	2,320 73	
	Repairs,	1,077 11	
Supplies,		213 37	
Tools,		789 23	
Work and material charged to departments and private parties,		519 77	
		$53,537 23	
Unexpended balance,		1,440 16	
			$54,977 39

BILLS RECEIVABLE.

Bills receivable, November 30, 1910,	$590 59	
Bills committed, fiscal year 1911,	19,919 20	
		$20,509 79
Bills paid, fiscal year 1911,	$19,945 76	
Abatements,	164 51	
		20,110 27
Bills receivable, November 30, 1911,		$399 52

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SEWER CONSTRUCTION CLASSIFIED.

VITRIFIED CLAY PIPE.

SIZES.	LENGTH IN FEET. New Construction.	Reconstruction.	Total Length.
8″		111′	111′
10″	6,994′	729′	7,723′
12″	3,171′	1,725′	4,896′
15″	497′	1,799′	2,296′
18″	629′	498′	1,127′
20″	704′	1,059′	1,763′
24″	865′	460′	1,325′
Total	12,860′	6,381′	19,241′

CONCRETE.

SIZES.	LENGTH IN FEET. Reconstruction.	New Construction.	Total Length.
2′-3″ circular		463′	
2′-2″x3′-3″ egg shape		919′	
Total		1,382′	1,382′

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SEWER CONSTRUCTION AND RECONSTRUCTION.

DESCRIPTIONS AND COSTS—FISCAL YEAR 1911.

LOCATION.	Material.	Length in Feet.	Size.	Cost.
Applewood place, Belmont avenue northerly	Clay	469	10″	$391 81
Belmont avenue, manhole		....	....	44 05
Berkeley street, manhole		....	....	42 80
Blake Hill, Fort Pleasant avenue easterly, completion	Clay	211	10″	217 88
Bowles street, Bay street southerly, relaying, completion		....	....	20 55
Bowles street, manhole		....	....	26 99
Bridge street, manhole		....	....	43 59
Brightwood avenue, Plainfield street westerly	Clay	171	15″	178 00
Bristol street, Marlborough street southerly	Clay	552	10″	293 99
Brooklyn avenue, Sumner avenue southerly	Clay	423	12″	329 56
Brunswick street, Brooklyn avenue southerly	Clay	307	10″	190 48
Calhoun street, manholes		....	....	105 56
Carew street, manhole		....	....	38 31
Center street, Oak Grove avenue northerly, extension	Clay	860	10″	328 35
Centre street, I. O., flush gate		....	....	29 90
Central street, Main to Maple street, rebuilding	Concrete	463	2′-3″ circular	2,332 17
	Clay	460	24″	2,665 22
	Clay	434	20″	
Chestnut street, Worthington to Bridge street	Clay	353	24″	1,148 06

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SEWER CONSTRUCTION AND RECONSTRUCTION.—CONTINUED.

LOCATION.	Material.	Length in Feet.	Size.	Cost.
Claremont street, Orange street southerly	Clay	492	10″	$264 58
Clermont street, I. O., Healey avenue easterly	Clay	150	10″	128 28
Clifton avenue, Central street westerly, relaying	Clay	111	8″	54 58
College street, manhole		....	....	37 80
Court street, manhole		....	....	39 60
Cross street, manhole		....	....	40 69
Cumberland street, easterly to North street, extension	Clay	238	12″	284 06
Dawes street, manhole		....	....	41 96
Dwight street, Harrison avenue northerly, relaying, completion		....	....	127 81
Elliott street, manhole		....	....	32 91
Euclid avenue, flush gate		....	....	24 27
Everett street, Cass street easterly, relaying, completion		....	....	61 71
Florida street, Worthington street northerly to Ingersoll grove, relaying	Clay	555 279	15″ 12″	978 89
Foster street, Knox street easterly	Clay	511	12″	517 25
Franklin street, Garden brook easterly to Chestnut street, rebuilding	Concrete	919	2′-2″x3′-3″ egg shape	4,106 84
	Clay	295	20″	652 82
Greenacre square, north, Foster street easterly	Clay	201	10″	149 62
Greenacre square, south, Foster street easterly	Clay	246	10″	163 73

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SEWER CONSTRUCTION AND RECONSTRUCTION.—CONTINUED.

LOCATION.	Material.	Length in Feet.	Size.	Cost.
Greenwood street, North street easterly, relaying, completion....		....	....	$65 67
Hampshire street, I. O., Pine street westerly.....	Clay	324	10″	391 15
Healey avenue, I. O., Worcester street southerly.....	Clay	326	15″	270 40
Hiawatha street, White street westerly	Clay	383	10″	268 30
Hollywood street, Dickinson street easterly	Clay	174	10″	121 04
Homer street, State street southerly, extension.....	Clay	94	10″	99 81
Ingersoll grove, Florida street easterly	Clay	146	10″	71 14
Johnson street, I. O., Main to South street.....	Clay	500 463	20″ 18″	1,254 26
King street, Hancock to Logan street, relaying, completion	Clay	238 239	12″ 10″	701 29
Knox street, Windsor street southerly, relaying.....	Clay	34	15″	47 88
Laurel avenue, extension toward Connecticut river.....	Clay	20	18″	44 62
Lyman street, extension easterly from near Chestnut street, relaying.	Clay	202	15″	874 52
Main street, Locust to Mill street, relaying.....	Clay	385 394	15″ 12″	1,809 52
Main street, I. O., Bay street westerly, extension.....	Clay	149	12″	193 97
Main street, I. O., manhole.....		....	....	44 09
Marble street, manholes.....		....	....	69 15

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SEWER CONSTRUCTION AND RECONSTRUCTION.—CONTINUED.

LOCATION.	Material	Length in Feet.	Size.	Cost.
Marengo park, flush gate		....	....	$22 37
Massachusetts avenue, manhole and flush gate		....	....	47 67
Massasoit street, Carew street northerly, completion		....	....	11 40
Massasoit street, Montmorenci street to Lexington avenue, rebuilding, completion		....	....	16 49
Maynard street, manholes		....	....	68 00
Mill street, Dickinson street easterly.	Clay	325	24″	619 85
Mulberry street, Maple to School street, relaying	Clay	426 270	15″ 12″	873 04
Noel avenue, Mill street southerly..	Clay	204 146	20″ 18″	569 64
North street, Ferry street northerly..	Clay	148	10″	223 34
North Main street, manhole		....	....	37 32
North Main street, northerly to Chicopee line, completion		....	....	10 48
North Main street, Wason avenue southerly, completion		....	....	11 40
North Main street, Osgood street southerly	Clay	199	10″	641 23
North Main street, Wason avenue northerly, extension	Clay	252	12″	181 86
North Main street, Eagle street northerly, extension	Clay	39	24″	88 55
Oak street, Walnut to Tyler street relaying	Clay	177	18″	297 10
Oak Grove avenue, Bay street southerly, extension	Clay	50	10″	42 81

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SEWER CONSTRUCTION AND RECONSTRUCTION.—CONTINUED.

LOCATION.	Material.	Length in Feet.	Size.	Cost.
Oak Grove avenue, Center street northerly	Clay	492	10″	$198 85
Orange street, extension easterly near Allen street	Clay	225	10″	103 88
Orlando street, Belmont avenue northerly	Clay	246 193	12″ 10″	396 28
Plainfield street, Sanderson terrace southerly, extension	Clay	148	24″	535 51
Prescott street, Belmont avenue northerly	Clay	340	10″	195 22
Prospect street, Massasoit street easterly, extension	Clay	325 423	12″ 10″	726 53
School street, manhole and flush gate		....	....	52 85
Spencer avenue, Sumner avenue southerly	Clay	282 315	12″ 10″	451 29
Spring street, manhole		....	....	39 19
Spruce street, manhole		....	....	51 87
Sumner avenue, Castle avenue easterly, extension	Clay	629	12″	606 95
Taylor street, Main to Dwight street, relaying	Clay	330 321 197	20″ 18″ 15″	2,099 63
Thorndyke street, Sumner avenue southerly	Clay	116	12″	148 93
Tyler street, manholes and flush gate.		....	....	209 05
Vinton street, manhole		....	....	35 84
Waverly street, manholes		....	....	70 94
Webster street, manholes and flush gate		....	....	110 45

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SEWER CONSTRUCTION AND RECONSTRUCTION—CONTINUED.

LOCATION.	Material.	Length in Feet.	Size.	Cost.
Wellesley street, St. James avenue to Cornell street, relaying.....	Clay	286 224	12″ 10″	$540 30
White street, flush gate.....		....	....	25 08
Windsor street, Knox street westerly, relaying.....	Clay	308 266	12″ 10″	560 76
		20,623		$33,372 93

NOTE.—The costs of the above described sewers include the costs of manholes and flush gates.

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SEWERS ABANDONED—1911.

LOCATION.	Material.	Length in Feet.	Size.	Cost.
Central street, Main to Maple street.	Brick	464	2'x3'	$2,470 34
	Brick	700	1'-8"x2'-6"	
	Clay	188	18"	
Clifton avenue, Central street westerly	Clay	119	8"	33 08
Court street, Water street easterly	Cem.	243	12"	230 58
Florida street, Worthington street to	Cem.	273	15"	882 94
Ingersoll grove	Cem.	561	12"	
Foster street (Central street place),	Cem.	279	10"	207 03
Knox street northerly	Cem.	61	12"	
Franklin street, Garden brook to	Cem.	469	18"	1,905 70
Chestnut street	Cem.	735	15"	
King street, Eastern avenue to Logan	Cem.	405	12"	96 24
street	Clay	72	10"	
Knox street, Windsor street southerly	Cem.	19	15"	2 60
Lyman street, easterly from near Chestnut street	Cem.	202	15"	464 00
Main street, Locust to Mill street	Cem.	745	15"	1,333 55
Mulberry street, Maple to School street	Cem.	687	15"	650 59
Oak Grove avenue, Shattuck avenue northerly	Clay	160	12"	.....
Oak street, Walnut to Tyler street	Cem.	158	18"	280 65
Taylor street, Main to Dwight street.	Cem.	650	15"	1,087 94
	Clay	198	12"	
Walnut street, Pine to Oak street	Cem.	18	18"	27 00
Wellesley street, Cornell street easterly	Cem.	373	12"	94 76
Windsor street, Pine street southerly	Cem.	80	15"	.....
	Cem.	485	10"	
		8,344		$9,767 00

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SUMMARY.

DESCRIPTION.	Length in Feet.	Cost.
Concrete sewers built by regular appropriation.....	1,382	$6,466 90
Clay pipe sewers built by regular appropriation	19,241	25,478 78
Flush gates and manholes built by regular appropriation.....		1,427 30
	20,623	33,372 98
Sewers abandoned.....	8,344	9,767 00
Net addition to sewer system.....	12,279	$23,605 98

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SEWER CLEANING AND REPAIRS.

	COST OF	
	Cleaning.	Repairs.
Bancroft street,		$34 27
Bay street,	$56 95	
Bowles street,	44 64	
Calhoun street,	17 17	
Cambridge street,	85 00	
Carew street,		31 76
Clarendon street,		17 69
Cleveland street,	12 78	
Clinton street, submerged outlet,	14 29	
College street,		12 58
Colton street,	32 02	2 49
Court street,		10 33
Dawes street,	42 50	
Dickinson street,	9 82	20 82
Dwight street,		9 00
Elm street, submerged outlet,	14 91	
Ferry street,	58 31	
Florida street,		12 25
Forest Park avenue,	27 18	
Garden brook,	432 82	8 59
Girard avenue,	26 68	
Green street,	34 00	
Greenwood street,		11 23
Grover street,	53 18	
Hampden street,		10 50
Hancock street,	103 13	
Hickory street,	22 75	
Homer street,		15 94
Kibbe hollow,		12 23
Laurel avenue,	103 44	2 81
Lebanon street,	17 00	
Liberty street,	96 07	5 64
Locust street,		14 91
Lowell street,	2 19	

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SEWER CLEANING AND REPAIRS—CONTINUED.

	COST OF	
	Cleaning.	Repairs.
Main street,	$195 94	$19 71
Main street, I. O.,	13 00	10 02
Maplewood terrace,	22 99	
Margaret street,		12 84
Marion street,	10 62	
Mason street,	51 00	
Massasoit street,	58 60	15 99
Maynard street,		16 98
McKnight street,	34 00	27 12
Mill River intercepting sewer,		10 89
Montrose street,	33 13	
Mulberry street,		16 49
North Main street,	25 50	6 21
Oak street,	17 13	6 01
Osgood street,		90 53
Pendleton avenue,	59 50	
Pine street,		23 10
Plainfield street,	51 00	18 00
Prince street,	17 00	2 51
Roseland street,	25 50	
Rutledge avenue,		23 82
Sanford street,	14 61	
Sargeant street,		34 54
Sharon street,	68 00	2 72
Sheldon street,		15 12
Sundry sewers, costing less than $10,	153 25	372 56
Spring street,	36 12	2 97
State street,	125 25	
Summer street,		33 25
Union street,	70 72	
Vernon street,	55 25	8 94
Vine street,	46 75	36 00
Water street,	17 00	

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SEWER CLEANING AND REPAIRS—CONTINUED.

	COST OF	
	Cleaning.	Repairs.
Wilbraham avenue, ...	$14 86	
Windsor street, ...		$12 67
Worcester avenue, ...	31 75	4 56
Worthington street, submerged outlet, . . .	14 92	
Worthington street, ...	75	26 07
	$2,570 77	$1,077 11

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GENERAL DESCRIPTIONS.

The total expenditures for new sewer construction and reconstruction during the year amounted to $33,372.93. Deducting cost of sewers abandoned, amounting to $9,767.00, leaves $23,605.93 to be added to the value of the sewer system as of November 30, 1910.

The total value of our system on November 30, 1911, was accordingly $1,528,138.58 and embraces a total of 124.8 miles of sewers in the care of this department.

As heretofore, all sewer construction has been done directly by this department, a practice originated in recent years.

SEWER FEES.

The receipts from entrance fees exclusive of the fees on account of building private drains amounted to $13,148.27 and the number of connections made to buildings during the year was 488.

PIPE SEWERS.

The length of pipe sewers laid during the year was 19,241 feet.

As may be seen by reference to the table, this was distributed throughout the entire city, not only in the sections recently opened for residence purposes but also in the older sections, where it has become necessary to replace old sewers with those of larger capacity and improved materials.

TRUNK SEWERS.

Trunk sewers, of Portland cement concrete, have been built in Franklin street between Garden brook and Chestnut street, and in Central street between Morris and Maple streets, that in Franklin street to replace a cement pipe sewer which had caused trouble and the one in Central street to replace a small brick sewer which was found to be in a very defective condition.

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CEMENT PIPE SEWERS.

We have been able this last season to devote more than the usual amount of time and money to the replacing of the old cement pipe sewers with modern construction. A number of these old sewers collapsed in part, during the past year, and in most cases have been rebuilt. There are still remaining some twenty-three miles of cement pipe sewers which should be replaced as rapidly as practicable, as they are a continual source of expense and danger.

ACKNOWLEDGMENTS.

Since the resignation of Mr. A. A. Adams as Superintendent of Sewers, April 1, 1911, the work of this department has been under my supervision and I wish to acknowledge the co-operation of the foremen and men, and also to thank Aldermen W. A. Dodge, Ralph W. Wight, and Edward S. Goldthwaite, members of the Committee on Sewers and Drains, for the many courtesies extended to me.

Respectfully submitted,

HOWARD O. BUCK,

Acting Superintendent of Sewers.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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CITY OF SPRINGFIELD,

SEWER SYSTEM TABULATED TO DECEMBER 1, 1911.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Abbe ave., Fisk ave., westerly	301	15″	Clay	$497.38	
	275	12″	Clay		
Plainfield st., westerly	300	18″	Clay	1,405.16	
	300	15″	Clay		
	301	12″	Clay		
	200	10″	Clay		
*Acorn st., Sycamore to Edgewood st					$1,902.54
	276	10″	Clay		176.64
Acushnet ave., Main st., easterly	294	20″	Clay		
	279	18″	Clay		298.94
	271	15″	Clay		
	26	12″	Clay		
Adams st., Main to Ashmun st	294	20″	Clay		
	245	18″	Clay	3,267.83	
	323	15″	Clay		
	221	12″	Clay		
Richelieu st., westerly	237	12″	Clay	304.12	3,571.95
Alden st., Hancock st. to Eastern ave.	595	18″	Cem.	1,646.13	
	820	15″	Cem.		
Eastern ave. to Wilbraham ave	895	15″	Clay	911.39	
Wilbraham ave. to Hickory st	499	10″	Clay	250.86	2,808.38
Alderman st., Dickinson to Scott st	296	18″	Clay		
	304	15″	Clay		1,148.99
	300	12″	Clay		
	443	10″	Clay		
Alexander st., North st., easterly	288	10″	Clay		188.48
Alfred st., Birnie ave., easterly	377	10″	Clay		.....
Allen ave., Allen st., easterly	338	10″	Clay		232.73
Allen st., Mill river to Oakland st	216	24″	Clay	576.86	
Mill to Oakland st	365	10″	Clay	447.19	
Oakland st. to Plumtree road	686	24″	Clay	1,832.06	
	383	18″	Clay		
	474	15″	Clay	1,701.91	
	580	12″	Clay		
	1,603	12″	Clay	950.46	
	1,401	10″	Clay	984.62	6,493.10

* Sanitary sewer.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Allendale st., North st., easterly	272	12″	Clay		$401.43
	340	10″	Clay		
Amaron st., State st., southerly	349	10″	Clay		222.90
Amherst st., Harvard st., northerly	441	12″	Cem.	$146.99	
	25	10″	Clay	23.78	
Princeton to Monmouth st.	512	12″	Clay	622.90	
	191	10″	Clay		
					793.67
Andrew st., State st., northerly	463	20″	Clay		1,809.21
	422	18″	Clay		
	382	12″	Clay		
Applewood place, Belmont ave., northerly	469	10″	Clay		391.81
Arbor st., Butler to Carew st.	398	12″	Clay		318.05
Arch st. (see Garden brook)					
Armory hill sewer (see private ways).					
Armory st., Worthington st., southerly	570	15″	Cem.	658.06	
Summer st., southerly	374	12″	Clay	384.78	
	325	10″	Clay	193.87	
B. & A. R.R. to Liberty st.	690	15″	Clay		
	360	12″	Clay	1,165.47	
	271	10″	Clay		
Liberty to Sullivan st.	450	1′-10″x2′-9″	Brick	2,439.42	
	476	1′- 8″x2′-6″	Brick		
Sullivan to Carew st.	156	24″	Clay		
	267	20″	Clay	1,006.45	
	290	12″	Clay		
Carew st., northerly	452	20″	Clay	1,209.52	
	803	10″	Clay		
Springfield st., southerly	31	20″	Clay	317.00	
	146	18″	Clay		
					7,374.57
Ashley st., Cedar st., easterly	65	18″	Cem.	80.45	
	580	15″	Cem.	1,555.00	
	697	12″	Cem.		
					1,635.45
Ashmont st., Belmont ave., northeasterly	250	12″	Clay		351.57
	200	10″	Clay		
Atwater Terrace road, Greene lane, westerly	322	20″	Clay		....
	199	18″	Clay		
Auburn st., Fulton st., easterly	397	12″	Clay		655.06
	335	10″	Clay		
Austin st., State st., northerly	363	10″	Clay		334.91

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Autumn st., Summer to Worthington st.	239	15″	Clay		$715.29
Avon place, Maple st., easterly	695	24″	Clay		3,359.45
Bancroft st., Garden brook to Chestnut st.	1,361	3′-4″x5′-0″	Brick		
including Chestnut st., Bancroft to Montmorenci st.	379	3′-2″x4′-9″	Brick		8,914.04
Montmorenci st., Chestnut st., easterly	43	3′-2″x4′-9″	Brick		
Bay st., St. James ave. to	250	15″	Clay		
Pleasant st.	245	12″	Clay	$715.01	
	228	10″	Clay		
Florida to Pleasant st.	235	12″	Clay	321.02	
Florida to Sherman st.	304	20″	Clay	1,092.89	
	377	18″	Clay		
	812	15″	Clay	945.16	
Sherman to Clarendon st.	151	8″	Cem.	46.82	
Catharine to Clarendon st.	194	10″	Clay	200.66	
Bowles to Cambridge st.	1,037	2′-8″x4′-0″	Brick	8,056.62	
	360	2′-2″x3′-3″	Brick		
Cambridge to Sycamore st.	332	24″	Clay	1,348.03	
	360	20″	Clay		
					12,726.21
Beacon st., Eastern ave. to Colton st.	250	10″	Clay	152.81	
Colton st., easterly	106	8″	Clay	75.08	
					227.89
Beaudry st., I. O., Main st., southerly	300	12″	Clay		745.95
	270	10″	Clay		
Beaumont st., Belmont ave.,	250	12″	Clay	403.87	
northerly	431	10″	Clay		
Belmont ave. to Sumner ave.	264	10″	Clay	183.91	
					587.78
Beech st., Central st., northerly	410	10″	Cem.		95.58
Beechwood ave., Sumner to Spruceland ave.	595	12″	Clay		19.09
Belgrade place, Walnut st.,	220	8″	Clay		
westerly	140	6″	Clay		....
Bellevue ave., Belmont ave.,	300	18″	Clay		
easterly	300	15″	Clay	....	
	194	12″	Clay		
Dickinson st., westerly	744	10″	Clay	....	
					....

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Belmont ave., Fort Pleasant ave., easterly	90	10″	Clay	$93.92	
Mill river to Woodside ter.	954	20″	Clay	2,698.67	
Woodside ter. to Litchfield	660	2′- 0″x3′-0″	Brick		
	445	1′-10″x2′-9″	Brick		
	595	1′- 8″x2′-6″	Brick	11,750.19	
	550	1′- 6″x2′-3″	Brick		
Litchfield st. to Kenwood Park	432	20″	Clay		
	493	18″	Clay	1,495.58	
Kenwood Park to Sumner ave	301	15″	Clay		
	403	12″	Clay	871.69	
	616	10″	Clay		
*Sumner ave. to Woodlawn st	830	3′- 4″x5′-0″	Brick		
	819	3′- 0″x4′-6″	Brick	8,216.97	
	245	3′- 0″x4′-6″	Br.C.		
	416	2′-10″x4′-3″	Br.C.	3,470.41	
*Woodlawn to White st	1,637	2′-10″x4′-3″	Con.	7,237.33	
					$35,834.76
Belmont place, Belmont ave., southerly	216	10″	Clay		159.78
Benton ave., Benton st., easterly	300	10″	Clay		360.43
	325	8″	Clay		
Benton st., State st., southerly	301	12″	Clay		
	300	10″	Clay	513.96	
	247	8″	Clay		
	320	8″	Clay	419.68	
					933.64
Berendo st., Grenada terrace to Alderman st.	345	12″	Clay		282.67
Berkeley st., Princeton to Monmouth st	483	12″	Clay		560.02
Berkshire st., I. O.					
Oak to Myrtle st	701	12″	Cem.	946.21	
Oak st., easterly	387	12″	Clay	389.89	
Chestnut to Myrtle st	577	12″	Clay	545.74	
					1,881.84
Besse place, Main st., westerly	290	10″	Clay		....
Birnie ave., Wason ave., northerly and easterly to North Main st	896	24″	Clay	1,534.02	
	174	15″	Clay		
Wason ave., southerly	350	18″	Clay	1,024.75	
	417	15″	Clay		
Worcester st. extension, northerly to Grace st	162	15″	Cem.	....	
Worcester st. extension, southerly to Walter st.	144	12″	Cem.	....	

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Douglas st., northerly....	292	24″	Clay		
	303	20″	Clay	$1,149.93	
	304	15″	Clay		
	144	10″	Clay		
Douglas st., to near	373	1′-10″x2′-9″	Brick	1,319.73	
Hooker st.....	312	20″	Clay	768.74	
	316	18″	Clay		
	168	15″	Clay	158.56	
Arch to Hooker st.....	1,048	24″	Clay	....	
					$5,955.73
Blake hill, Fort Pleasant ave., easterly.....	244	10″	Clay		236.22
Bliss st., from Main to N. Y., N. H. & H. R. R..	1,284	12″	Cem.		1,190.68
Bloomfield st., Oakland st., easterly.....	500	18″	Clay		1,326.47
	397	15″	Clay		
Bond place, including 41 feet in Bridge st. (for cost see Symonds ave.).....	203	12″	Cem.		....
Bond st., Garden brook	341	2′-0″x3′-0″	Brick	1,580.25	
sewer to Chestnut st...	959	24″	Clay	2,261.42	
					3,841.67
Bowdoin st., Worthington st., southerly.....	660	15″	Cem.	762.11	
	285	12″	Clay	371.52	
Worthington to Ingersoll grove.....	819	12″	Cem.	758.64	
					1,892.27
Bowles st., Bay to McKnight	695	15″	Cem.	1,083.39	
	64	15″	Clay	136.50	
Pease st., northerly.....	275	8″	Clay	62.76	
					1,282.65
Boylston st., Cypress to Clinton st.....	610	18″	Cem.		1,638.72
	346	15″	Cem.		
Burlington st., Belmont ave., northerly.....	137	10″	Clay		....
Bradford st., North Main to	352	15″	Cem.		1,301.99
Fulton st.....	758	12″	Cem.		
Bridge st., Main st. to Conn.	798	12″	Cem.	762.38	
river.....	275	15″	Clay	429.14	
Main to Chestnut st....	1,158	2′-0″x3′-0″	Brick	5,414.20	
					6,605.72
Brightwood ave., Plainfield st., westerly.....	171	15″	Clay		178.00
Bristol st., Wilbraham road	299	15″	Clay		
to Marlborough st.....	560	12″	Clay	599.47	
Marlborough st., southerly.....	552	10″	Clay	293.99	
					893.46

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Broad st., Hanover to Main st.	970	15″	Cem.		$1,401.19
Brookline ave., North st., easterly	328	12″	Clay		29.57
	171	10″	Clay		
Brooklyn ave., Sumner ave., southerly	423	12″	Clay		329.56
Brown st., Yale to Bay st.	483	10″	Cem.		357.65
	21	8″	Cem.		
Brunswick st., Brooklyn ave., southerly	307	10″	Clay		190.48
Bryant st., Belmont to Sumner ave.	274	15″	Clay		728.44
	301	12″	Clay		
	300	10″	Clay		
Buckingham place, Bay st., westerly	235	10″	Clay		168.97
Buckingham st., Bay to Clarendon st.	651	12″	Clay	$597.24	
Bay st., southerly	35	12″	Cem.		
State to Bay st.	305	18″	Clay		
	345	15″	Clay	1,158.40	
	675	12″	Clay		
					1,755.64
Burr st., Andrew st., easterly	570	12″	Clay		459.03
Butler st., Chestnut to Cass st.	1,268	20″	Clay	2,119.54	
Cass st., easterly	321	20″	Clay	520.71	
					2,640.25
Calhoun st., North Main to North st.	853	12″	Clay	701.77	
North st., easterly	300	8″	Clay	262.38	
					964.15
Cambridge st., Bay st., southerly	276	20″	Clay		
	331	18″	Clay	1,204.43	
	266	15″	Clay		
	302	12″	Clay		
	278	10″	Clay	411.63	
					1,616.06
Card-factory pond (see private ways).					
*Carew st., Main st. to Garden brook (cost shown under Clinton st.)	250	4′-6″x6′-9″	Brick	....	
	32	5′-0″ cir.	Brick	....	
Garden brook to Prospect st.	1,456	4′-3″ cir.	Brick	21,951.53	
	1,257	3′-0″ cir.	Brick		
	791	2′-8″ cir.	Brick		

*Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Massasoit st., easterly....	580	18″	Cem.	$671.51	
	200	12″	Cem.	153.28	
Prospect to Armory st...	989	2′-8″ cir.	Con.	8,513.49	
	1,365	2′-6″x3′-9″	Con.		
Armory st., easterly.....	1,101	10″	Clay		
	448	8″	Clay		
Liberty st., easterly.....	502	15″	Clay	2,400.86	
	499	12″	Clay		
	434	10″	Clay		
					$33,690.67
Carlisle st., Wilbraham road, southerly.....	400	10″	Clay		355.69
	246	8″	Clay		
Cass st., Liberty to Franklin st.....	500	12″	Clay	575.28	
	163	10″	Clay		
Linden st., southerly.....	596	15″	Clay	892.07	
Linden st., northerly.....	224	12″	Clay		
					1,467.35
Catharine st., Dartmouth to McKnight st.....	833	2′-0″x3′-0″	Brick	4,428.92	
State to McKnight st....	348	15″	Clay	1,348.95	
	438	12″	Clay		
	333	10″	Clay		
					5,777.87
Cedar st., Pine to Walnut st.	180	3′-10″x5′-9″	Brick	889.35	
	1,074	3′- 8″x5′-6″	Brick	6,206.73	
Pine st., westerly.....	378	12″	Cem.	288.32	
					7,384.40
Cedar st., I. O., Main to river.....	433	2′-0″x3′-0″	Brick	2,001.44	
Main to Centre st.....	274	12″	Clay	263.92	
					2,265.36
Cemetery brook (see private ways).					
Center street, Oak Grove ave., northerly.....	1,008	10″	Clay		353.08
Centre st., I. O., Oak to Pine st.....	463	12″	Cem.	510.73	
Pine to Cedar st.....	349	12″	Clay	668.19	
	300	10″	Clay		
Cedar st., easterly.....	400	10″	Clay	371.71	
					1,550.63

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Central st., Main st., easterly	99	15″	Cem.	$147.60	
	546	12″	Cem.	385.49	
Main to Maple st.....	63	2′-0″x3′-0″	Brick	119.57	
	463	2′-0″x3′-0″	Con.	2,332.17	
	460	24″	Clay	2,665.22	
	434	20″	Clay		
near Maple st. to Sterns	581	18″	Clay	918.22	
terrace.....	105	12″	Clay	199.95	
Sterns terrace to Cedar st.	334	18″	Cem.	102.50	
Pine st., westerly.....	500	12″	Cem.	568.42	
Pine to Spruce st.....	339	12″	Cem.	376.00	
	335	12″	Clay	514.05	
	310	10″	Clay		
Spruce to Hancock st.....	861	20″	Clay	1,344.35	
Hancock to Mill st.....	597	2′-0″x3′-0″	Brick	2,135.31	
Mill st. to Mill river.....	40	24″	Clay	136.83	
					$11,945.68
Chapel st., Eastern ave., easterly.....	400	10″	Clay		208.13
Chapin terrace, Chestnut st., easterly.....	327	15″	Clay		1,124.82
	279	12″	Clay		
Chase ave., Fort Pleasant ave., easterly.....	238	12″	Clay		24.49
	333	10″	Clay		
Charles st., Liberty to Franklin st.....	27	12″	Clay	647.16	
	620	12″	Cem.		
Liberty st., southerly	29	12″	Clay	12.94	
					660.10
Charter ave., Walnut st., easterly.....	527	12″	Clay		475.20
Cherrelyn ave., Phœnix st., southerly.....	300	15″	Clay	410.62	
	651	12″	Clay	574.73	
					985.35
Cherry lane, Mill river to Central st.....	398	18″	Clay		1,454.15
	434	15″	Clay		
	251	12″	Clay		
	295	10″	Clay		
Cherryvale ave., Longhill st. to Florentine gardens	596	10″	Clay		15.74
Chester st., Mill st., northerly	459	12″	Clay	509.11	
	161	10″	Clay		
	112	8″	Clay	....	
					509.11

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Chestnut st., Edwards st., southerly	575	12″	Cem.	$579.02	
Mattoon st., southerly	288	15″	Cem.	319.69	
Pearl to Mattoon st.	313	1′-4″x2′-0″	Brick	445.40	
Pearl to Bridge st.	143	1′-8″x2′-6″	Brick	599.51	
Bridge to Worthington st.	480	2′-0″ cir.	Brick	....	
Worthington to Bridge st.	353	24″	Clay	1,148.06	
Worthington to Taylor st.	60	18″	Cem.	291.17	
	244	12″	Cem.		
Lyman st. to B. & A. R.R.	134	18″	Cem.	355.41	
	72	12″	Cem.		
Franklin st., southerly	500	12″	Cem.	358.75	
Franklin st., northerly	397	12″	Cem.	294.14	
Essex to Everett st.	374	15″	Cem.	586.72	
Carew st., southerly	126	8″	Clay	100.68	
Carew to Prospect st.	424	24″	Clay	1,618.64	
	537	20″	Clay		
Prospect st., northerly	220	12″	Cem.	178.88	
Bancroft st., southerly	172	12″	Cem.	123.00	
	108	12″	Clay	190.55	
	19	10″	Clay		
Bancroft to Montmorenci st.	391	15″	Cem.	535.24	
Bancroft to Montmorenci st. (see Bancroft st.)	....	3′-2″x4′-9″	Brick	....	
Montmorenci to Waverly st.	185	12″	Cem.	252.23	
	717	12″	Clay	807.01	
Douglas st., southerly	450	10″	Clay	385.61	
Douglas to Springfield (see Springfield st.)	....	3′-6″ cir.	Brick	....	
Merwin st., southerly	178	10″	Clay	....	
Eagle st., northerly	87	15″	Clay	....	
Eagle st., southerly	171	10″	Clay	....	
					$9,169.71
Chestnut st., I. O., Worcester to Hampden st.	342	15″	Cem.	340.25	
	30	15″	Clay	55.26	
Hampden to Berkshire st.	307	15″	Clay	342.65	
					738.16
Church st., Garden brook to	556	18″	Clay	1,440.68	
North st.	80	15″	Cem.	157.23	
					1,597.91
Churchill st., Sumner ave. to	580	12″	Clay	84.12	
Garfield st.	55	8″	Clay	6.89	
					91.01

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Clantoy st., Phœnix to Dupont st.	398	15″	Clay		
	517	12″	Clay		$1,130.95
	241	10″	Clay		
Claremont st., Orange st., southerly.	492	10″	Clay		264.58
Clarendon st., Worthington st., westerly.	205	10″	Clay	$225.80	
Worthington to St. James ave.	336	18″	Cem.		
St. James ave. to Sherman st.	280	15″	Clay	1,859.31	
	605	12″	Clay		
					2,085.11
Clark st., Hancock st., westerly.	520	10″	Clay		531.80
Clayton st., Plainfield st., westerly.	299	18″	Clay	583.76	
	100	15″	Clay	163.91	
					747.67
Clermont st., I. O., Healey ave., easterly.	150	10″	Clay		123.28
Cleveland st., Armory to Liberty st.	274	18″	Clay		
	250	15″	Clay		790.48
	276	12″	Clay		
	284	10″	Clay		
Clifford st., Bay st., northerly.	250	12″	Clay		319.95
	119	10″	Clay		
Clifton ave., Central st., southerly.	398	8″	Clay		134.54
Cliftwood st., Sumner ave., southerly.	464	10″	Clay		37.90
Clinton st., Fulton to Boylston st.	150	10″	Clay	....	
Boylston st., easterly	410	12″	Cem.	441.52	
submerged outlet.	176	24″	W'd	2,207.90	
	24	24″	C-ir.		
Conn. river to Fulton st..	593	4′-10″x7′-3″			
Fulton st., Clinton to Sargeant st.					
Sargeant st., Fulton to Main st.			Brick	26,137.87	
Carew st., Main st. to Garden brook.					
(For lengths and sizes see individual streets.)....					
					28,787.29
Clyde st., Plainfield st., westerly.	350	18″	Clay		
	350	15″	Clay		1,519.51
	271	12″	Clay		

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
College st., State st. to Shattuck ave.	839	12″	Clay	$207.53	
*Shattuck ave. to Acorn st.	311	12″	Clay	457.62	
	900	10″	Clay		
State st. to Wilbraham road	34	12″	Clay	387.72	
	443	10″	Clay		
					$1,052.87
Collins st., Eastern ave. to Logan st.	300	12″	Clay		457.04
	269	10″	Clay		
Colonial ave., State st., southerly	326	12″	Clay		25.65
	348	10″	Clay		
Colton st., Wilbraham road to Beacon st.	448	18″	Clay		2,015.70
	569	15″	Clay		
	658	12″	Clay		
Columbia terrace, Liberty st., north and east	498	10″	Clay		....
Commonwealth ave., Belmont to Washington ave.	441	24″	Clay		
	500	20″	Clay	2,878.00	
	549	18″	Clay		
Washington ave. to Fairview st.	691	15″	Clay	720.72	
					3,598.72
Concord terrace, Wilbraham road, northerly	253	10″	Clay		229.05
Congress st., Garden brook to Main st.	53	12″	Cem.	75.46	
	319	12″	Clay	705.44	
Garden brook to Chestnut st.	133	20″	Clay		
	198	18″	Clay	1,463.00	
	369	15″	Clay		
	288	12″	Clay		
	119	15″	Cem.	277.22	
	76	10″	Cem.		
					2,521.12
Continental st., Sumner ave. southerly	215	12″	Clay		102.05
	266	10″	Clay		
Converse st., Sumner ave. to Vermont st.	506	18″	Clay		443.87
Cook's ave., Worthington st. to N. Church ave.	117	15″	Cem.		
N. Church ave., southerly (includes cost of N. Church ave.)	69	10″	Cem.		573.84

* Sanitary sewer.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Cornell st., Dartmouth terrace to Wellesley st....	185	15″	Clay	$543.05	
	374	12″	Clay		
Wellesley st., easterly....	186	10″	Clay	208.20	
Princeton st., westerly ...	52	10″	Cem.	47.30	
	86	8″	Clay	88.04	
Princeton st., easterly....	181	10″	Cem.	132.12	
	120	10″	Clay	180.93	
					$1,199.64
Cortland st., State st., northerly.....	164	15″	Clay		672.01
	621	12″	Clay		
Cottage ave. (see Melrose st.)					
Court st., Court Square ave., westerly.....	461	12″	Cem.	621.55	
Main st. to Court Sq. ave.	200	12″	Cem.	309.67	
					931.22
Crosby st., Walnut st., westerly.....	321	10′	Clay		231.38
Cross st., Main to Willow st.	388	18″	Clay	878.12	
Willow st., easterly.....	363	12″	Cem.	352.25	
					1,230.37
Crystal ave., Belmont ave., easterly.....	251	15″	Clay		
	250	12″	Clay	24.07	
	298	10″	Clay		
*Dickinson st., westerly..	362	15″	Clay		
	372	12″	Clay	650.64	
					674.71
Cumberland st., Chestnut st., westerly.....	167	10″	Clay	125.29	
North Main to North st...	205	15″	Clay	300.96	
	238	12″	Clay	284.06	
					710.31
Cypress ave., Cypress st., northerly.....	360	12″	Cem.	484.08	
	40	12″	Clay	23.78	
					507.86
Cypress st., Conn. river to Garden brook in Ferry st.....	1,081	3′-4″x5′-0″	Brick	10,048.85	
†Connecticut river to Fulton st.....	385	4′-10″x7′-3″	Con.	3,890.53	
†Fulton to Main st.....	691	4′- 2″x6′-3″	Con.	6,470.80	
					20,410.18
Dale st., northerly from sewer 60 ft. south of Hubbard ave.....	203	10″	Clay	184.27	
Winthrop st., southerly ..	46	8″	Clay	13.08	
					197.35

* Surface drainage only. † Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Dartmouth st., St. James ave. to Yale st.....	973	3'-0"x4'-6"	Brick		$8,247.06
Yale to Bowles st.....	295	2'-6"x3'-9"	Brick		
Dartmouth terrace, Worthington to Cornell st....	499	20"	Clay		2,213.06
	357	18"	Clay		
	177	15"	Clay		
Davis court, Bridge st. to Harrison ave.....	450	12"	Clay		500.67
Dawes st., Bay st., southerly	229	15"	Clay		207.36
	380	12"	Clay		
	518	10"	Clay		
Dawson ave., White street, westerly.....	350	10"	Clay		95.87
Daytona st., Belmont to Sumner ave.....	524	12"	Clay		500.44
Demond ave., Fisk ave., westerly.....	510	12"	Clay		642.06
Plainfield st., easterly....	403	12"	Clay		
Dexter st., Knox to Pine st..	558	12"	Cem.	$60.83	
	226	10"	Clay	245.10	
					305.93
Dickinson st., Mill st. to Sumner ave.....	35	4'-6" cir.	Brick		
	60	2'-1"x5'-0"	Con.		
	251	5'-0" cir.	Brick		
	679	4'-0" cir.	Brick		
	*460	4'-10"x7'-3"	Brick	44,552.11	
	*869	4'-8"x7'-0"	Brick		
	*1,040	4'-4"x6'-6"	Brick		
	*996	4'-2"x6'-3"	Brick		
Sumner ave., southerly ..	1,379	2'-6"x3'-9"	Brick		
	324	2'-4"x3'-6"	Brick	8,760.53	
	434	2'-0"x3'-0"	Brick		
	312	1'-10"x2'-9"	Brick		
					53,312.64
Donald st., Birnie ave., easterly.....	315	10"	Clay		406.60
Dorchester st., St. James ave. to Amherst st.....	364	12"	Clay		417.70
	238	10"	Clay		
Dorne st., Smith st., northerly.....	219	12"	Clay		182.12
Douglas st., B.&M. R. R. to North Main st. (see Rowland ave.).....	....	....	....		....
North Main to Chestnut st.....	424	4'-6" cir.	Brick		4,805.19
	442	4'-0" cir.	Brick		

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Dresden st., State st., southerly	359 321	12″ 10″	Clay Clay		$25.14
*Dwight st., Sanford to State	258	2′-8″x4′-0″	Brick	$1,571.86	
Sanford to Harrison ave. .	253 229 199	20″ 18″ 15″	Clay Clay Clay	1,441.27	
Harrison ave., northerly..	129	12″	Clay	319.96	
Hillman st., southerly....	226	10″	Clay	257.25	
Hillman st., northerly....	103	10″	Clay	388.28	
Worthington st., southerly	269	12″	Clay	433.91	
Worthington st., northerly	342	12″	Cem.	374.73	
					4,787.26
Dymon st., Walnut st., easterly	415	12″	Cem.		385.92
Eagle st., North Main to Chestnut st	643	15″	Clay		....
East Court st., Dwight st., westerly	206 62	12″ 10″	Clay Clay		303.10
East Hooker st., North Main to North st	444 255	10″ 10″	Cem. Clay	39.04	
					39.04
Eastern ave., Watershop pond to Manhattan st..	1,164	24″	Clay	2,164.43	
Manhattan to Alden st...	338	20″	Clay	636.21	
Alden to Collins st.....	231	12″	Clay	313.99	
Greene st., southerly.....	125	8″	Clay	69.58	
Greene to Ladd st.....	38	15″	Clay	67.21	
Olive st., southerly	169	8″	Clay	167.87	
Lebanon to Olive st.....	159	12″	Cem.	190.96	
Lebanon to King st.....	194	12″	Cem.	351.89	
	55	12″	Clay	95.43	
King to Chapel st.....	152	10″	Cem.	166.50	
	101	10″	Clay	149.70	
Pendleton ave., northerly.	312	12″	Cem.	256.78	
Tyler st., northerly.....	286	12″	Cem.	181.30	
Quincy st., northerly.....	118	10″	Cem.	131.15	
Monroe st., southerly....	28	12″	Cem.	45.09	
	210	8″	Clay	179.00	
Monroe st., northerly....	29	12″	Cem.	51.50	
	128	8″	Clay	90.66	
					5,309.25
Edgemont st., State st., northerly	499 201	10″ 8″	Clay Clay		510.70

*Surface drainage only.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
*Edgewood st., Acorn to Bay st.	1,001	8″	Clay		$443.73
Edwards st., Chestnut st., easterly	551	12″	Cem.		404.88
Elliott st., Salem st., southerly	610	15″	Cem.	$730.48	
	243	12″	Cem.	341.99	
					1,072.47
Elm st., submerged outlet	191	24″	Wood	1,700.79	
	26	24″	C. Iron	359.80	
Conn. river to Water st.	385	3′-9″ cir.	Brick	10,744.19	
Water to Main st.	996	3′-8″x5′-6″	Brick		
					12,804.78
Elmwood st., Main to Hanover st.	300	18″	Clay		
	249	15″	Clay		1,058.02
	299	12″	Clay		
Emery st., Boylston st., east and west	542	12″	Cem.		616.36
Essex street, Garden brook, westerly	418	15″	Cem.	355.00	
Garden brook to Chestnut st.	1,115	2′-2′x3′-3″	Brick	7,105.10	
	204	18″	Cem.	355.33	
					7,815.43
Essex st., I. O., Oak to Myrtle st.	254	12″	Clay	662.25	
	426	10″	Clay		
Oak st., easterly	183	10″	Clay	248.23	
					910.48
Euclid ave., Belmont ave. to Dickinson st.	389	12″	Clay	1,102.00	
	741	10″	Clay		
	77	8″	Clay	50.67	
†Dickinson st., westerly	350	15″	Clay	773.10	
	350	12″	Clay		
Dickinson st., easterly	275	10″	Clay	332.10	
					2,257.87
Everett st., Chestnut st. to brook	323	15″	Cem.	308.39	
brook to Cass st.	926	15″	Clay	821.43	
Cass st., easterly	313	15″	Clay	617.45	
					1,747.27
Fairbanks place, Worthington st., northerly	249	10″	Clay		220.66
Fairfield st., Litchfield to Garfield st.	376	12″	Clay	....	
	556	10″	Clay	351.64	
					351.64

* Sanitary sewer. † Surface drainage only.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Fairmount st., Commonwealth ave. to Lawndale st.	350	10″	Clay		$173.17
Farnsworth st., Hamburg st. to Chicopee line	530	20″	Clay	$1,653.14	
	279	18″	Clay		
	248	12″	Clay	827.14	
	264	10″	Clay		
					2,480.28
Federal st., Worthington to Pearl st.	567	12″	Cem.	740.92	
Summer st., southerly	274	10″	Clay	172.00	
					912.92
Ferry st., Main to Garden brook (see Cypress st.).	....	....	....	....	
Garden brook to Chestnut st.	1,168	2′-4″x3′-6″	Brick	5,417.12	
Main st., easterly	*394	4′-2″x6′-3″	Con.	11,067.29	
	1,004	4′-9″ cir.	Con.		
					16,484.41
Firglade ave., Sumner ave. to Spruceland st.	350	10″	Clay	84.44	
	203	8″	Clay		
Spruceland to Pineywoods avenue	447	10″	Clay	....	
	67	8″	Clay	....	
Pineywoods ave. to Washington boulevard	242	12″	Clay	395.64	
	176	10″	Clay		
					480.08
Fisk ave., Rowland to Worcester ave.	272	24″	Clay	1,073.11	
	275	20″	Clay		
	298	10″	Clay		
Wason ave., southerly	299	24″	Clay	1,216.81	
	294	20″	Clay		
	248	12″	Clay		
					2,289.92
Florence st., Pine st., easterly	824	15″	Cem.	2,227.38	
	651	12″	Cem.		
Hancock st., easterly	253	10″	Cem.	323.93	
	26	10″	Clay	31.11	
					2,582.42
Florentine gardens, Pineywoods ave., northerly	421	10″	Clay		22.83
Florida st., Worthington to Ingersoll Grove st.	555	15″	Clay	978.89	
	279	12″	Clay		
Worthington to St. James ave.	935	2′-2″x3′-3″	Brick	4,499.10	
St. James ave. to Bay st.	599	24″	Clay	1,832.21	
					7,310.20

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Forest st., Belmont to Forest Park ave.....	419	12″	Clay		$651.93
	255	10″	Clay		
Forest Park ave., Fort Pleasant ave. to Garfield st.	1,081	24″	Clay	....	
	325	20″	Clay	$1,217.48	
	562	18″	Clay		
Sumner ave., northerly ..	567	12″	Clay	123.15	
Sumner ave., southerly...	66	10″	Clay	....	
	438	10″	Clay	318.29	
Pineywoods ave., northerly.....	380	10″	Clay	33.87	
					1,692.79
Fort st., Main to Water st..	633	12″	Cem.		633.43
Fort Pleasant ave., Mill river to Sumner ave....	888	2′-4″x3′-6″	Brick	13,339.80	
	1,825	2′-0″x3′-0″	Brick		
Mill st., southerly.....	428	12″	Clay	293.42	
					13,633.22
Foster st., Knox st., easterly	511	12″	Clay	517.25	
	224	12″	Cem.	34.68	
					551.93
Franklin st., Garden brook sewer to Main st.....	434	18″	Cem.	593.13	
Garden brook sewer to Chestnut st.....	919	2′-2″x3′-3″	Con.	4,106.84	
	295	20″	Clay	652.82	
Chestnut to Charles st...	273	15″	Clay	303.37	
Charles st., easterly.....	670	12″	Clay	502.35	
Cass to Webster st.....	621	12″	Clay	684.32	
	70	10″	Clay		
Nursery st., westerly.....	207	15″	Clay	....	
Nursery to Genesee st....	107	15″	Clay	199.93	
	557	15″	Cem.	....	
	27	12″	Clay	57.66	
					7,100.42
Fremont st., Main to Water st.....	780	1′-6″x1′-7″	Brick	702.45	
Main st., westerly.....	656	12″	Cem.	692.92	
	30	12″	Clay	65.21	
					1,460.58
Fulton st., Cypress to Clinton st.....	944	12″	Cem.	826.66	
*Clinton to Sargeant st. (cost shown under Clinton st.).....	1,080	4′-8″x7′-0″	Brick	....	
	42	4′-10″x7′-3″	Brick	....	
Sargeant to John st..	555	15″	Cem.	1,219.02	
John st., northerly.....	314	12″	Clay	674.48	
	408	10″	Clay		
					2,720.16

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Garden brook sewer (see private ways).					
Gardner ave., Gardner st., northerly	151	8″	Clay		$73.11
Gardner st., Hanover to Water st	655	2′-0″x3′-0″	Brick	$1,995.23	
Water to Main st	226	12″	Clay	423.58	
	199	10″	Clay		
					2,418.81
Garfield st., Forest Park ave., easterly	556	15″	Clay	967.16	
	514	12″	Clay		
Belmont ave., westerly	531	10″	Clay	329.87	
					1,297.03
Genesee st., Franklin st., southerly	200	10″	Clay		234.87
George st., Dexter st., southerly	409	10″	Clay		344.52
Girard ave., Bay to McKnight st	944	12″	Clay		863.45
Gordon st., Pasadena ave. to White st	618	15″	Clay		555.79
Governor st., Armory st. to Penacook ave	424	20″	Clay		
	401	18″	Clay		
	402	15″	Clay		1,276.19
	224	12″	Clay		
Grace st., Birnie ave., easterly	274	15″	Cem.		51.56
Grand st., Revere st., easterly	250	15″	Clay		
	252	12″	Clay	....	
Revere st., westerly	151	10″	Clay	....	
					....
Grant st., Magazine to Armory st	588	12″	Cem.		477.26
Granville st., Eastern ave. to Logan st	495	12″	Cem.		560.46
Gray's ave., Cypress ave., northerly	495	12″	Cem.		460.92
Greenacre sq. (north), Foster st., easterly	201	10″	Clay		149.62
Greenacre sq. (south), Foster st., easterly	246	10″	Clay		163.73
Greene st., Hancock to Eastern ave	610	18″	Cem.		
	793	15″	Cem.		1,897.68

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Green lane, Rimmon ave.,	744	12″	Clay	....	
westerly and northerly.	143	10″	Clay	....	
					....
Greenleaf st., Sumner ave. to Garfield st.....	527	12″	Clay		$133.60
Greenwich st., Birnie ave., easterly.....	300	12″	Clay		467.79
	300	10″	Clay		
Greenwood st., Garden	386	12″	Cem.		
brook to Main st.....	538	15″	Clay		2,167.12
Garden brook, easterly...	448	12″	Clay		
	117	10″	Clay		
Grenada terrace, Dickinson	220	18″	Clay	$708.45	
to Ventura st.....	310	15″	Clay		
Ventura st., easterly	309	12″	Clay	397.28	
	216	10″	Clay		
					1,105.73
Grosvenor st., North to	131	18″	Cem.		721.17
Chestnut st.....	648	15″	Cem.		
Grove st., North Main st., easterly.....	409	10″	Clay		442.65
North st., westerly	270	10″	Clay		
Groveland ave., Dickinson	533	12″	Clay		525.19
st. to town line.....	117	10″	Clay		
Grover st., Armory to Liberty st.....	300	18″	Clay		
	303	15″	Clay		910.58
	298	12″	Clay		
	432	10″	Clay		
Hall st., Belmont ave. to	500	12″	Clay		
Dickinson st.....	474	10″	Clay	904.55	
*Dickinson st., southerly.	774	12″	Clay	698.29	
					1,602.84
Hamburg st., Springfield st.,	367	20″	Clay		1,067.20
easterly.....	235	10″	Clay		
Hampden st., Water to Main st.....	569	15″	Cem.		762.57
Hampden st., I. O., Chest-	285	12″	Cem.	187.28	
nut st., easterly.....	174	12″	Clay	299.12	
Holly st., easterly.....	150	10″	Clay	165.26	
Pine st., westerly.....	200	12″	Clay		
	199	10″	Clay	311.59	
					963.25

*Surface drainage only.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Hampshire st., I. O., Oak st., westerly	300	12″	Clay	$633.59	
	398	10″	Clay		
Oak st., easterly	250	12″	Cem.	206.20	
Pine st., westerly	324	10″	Clay	391.15	
Myrtle st., westerly	300	10″	Clay	295.05	
					$1,525.99
Hancock st., Mill river to Central st	920	12″	Clay	866.30	
Central to Walnut st	218	18″	Cem.	1,838.57	
	1,343	15″	Cem.		
Walnut to Alden st	122	12″	Cem.	88.00	
Lebanon to Alden st	827	2′-0″x3′-0″	Brick	5,009.61	
Walnut (through Lebanon) to Quincy st	1,852	3′-6″x5′-3″	Brick	21,668.02	
Quincy to State st	913	3′-4″x5′-0″	Brick		
					29,470.50
Hanover st., York to Gardner st	830	2′-2″x3′-3″	Brick		2,650.26
Harriet st., North Main to North st	250	15″	Clay	377.17	
	207	12″	Clay		
North st., easterly	330	10″	Clay	172.92	
					550.09
Harrison ave., Main to Chestnut st	600	15″	Cem.	874.11	
	250	8″	Clay	203.61	
					1,077.72
Harvard st., Yale st. to St. James ave	316	18″	Clay	998.99	
	300	15″	Clay		
	291	12″	Cem.	266.84	
St. James ave. to Cornell st	736	12″	Cem.	25.66	
					1,291.49
Hawley st., State st., southerly	110	12″	Cem.		
Monroe st., northerly	71	12″	Cem.		280.57
	330	10″	Clay		
Hawthorn st., Hancock st., westerly	441	12″	Cem.		480.95
Hayden st., State st., northerly	335	12″	Clay		
	299	10″	Clay		24.11
	222	8″	Clay		
Healey ave., I. O., Worcester st., southerly	326	15″	Clay		270.40
Hebron st., North to Chestnut st	663	12″	Clay		519.82

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Hiawatha st., White st., westerly	383	10″	Clay		$268.30
Hickory st., Mill river intercepting sewer to Alden st.	754	20″	Clay		2,446.84
	228	18″	Clay		
	184	15″	Clay		
	788	12″	Clay		
High st., Maple st. to Ingraham ave.	523	18″	Clay	$1,958.92	
	567	15″	Clay		
	550	12″	Clay		
Ingraham ave., easterly	846	12″	Clay	987.71	2,946.63
Hillman st., Main to Dwight st.	350	15″	Clay		1,436.30
	380	12″	Clay		
Hillside place, Richelieu court, easterly	106	8″	Clay		....
Holly st., I.O., Worcester to Hampden st.	377	15″	Clay	419.11	
Hampden st., southerly	175	12″	Clay	117.69	536.80
Hollywood st., Commonwealth ave., easterly	211	12″	Clay	445.87	
	241	10″	Clay		
Dickinson st., easterly	174	10″	Clay	121.04	566.91
Holyoke st., Main st., westerly	734	12″	Cem.		987.24
Home st., Liberty st., westerly	424	10″	Clay	302.25	
Penacook ave., easterly	246	10″	Clay	185.02	487.27
Homer st., State st., southerly	31	12″	Clay		186.81
	464	10″	Clay		
Horace st., Dickinson st., northerly	363	12″	Clay		783.12
	411	10″	Clay		
Howard st., Main st., westerly	344	15″	Clay	837.22	
	321	12″	Clay		
Water st., easterly	276	12″	Cem.	255.78	
	30	12″	Clay	43.40	
Water st., westerly	314	12″	Cem.	326.98	
	31	12″	Clay	43.47	1,506.85
Hubbard ave., Main st., easterly	257	15″	Clay		630.47
	321	12″	Clay		
Hunt terrace, Allen st., northerly	304	10″	Clay		....
Hunter place, State st., northerly	350	12″	Clay		602.72
	313	10″	Clay		

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Huntington st., Birnie ave., easterly	300	12″	Clay		$416.95
	300	10″	Clay		
Hyde ave., Fisk ave. to Plainfield st.	301	15″	Clay		712.99
	300	12″	Clay		
	219	10″	Clay		
Ingersoll grove, Worthington st., northerly	782	12″	Cem.	$1,038.85	
	218	8″	Clay		
Florida st., easterly	146	10″	Clay	71.14	
Bowdoin st., easterly	132	10″	Clay	106.53	
					1,216.52
Ionia st., State st., northerly	720	10″	Clay		445.92
Irvington st., Sumner ave. to Morningside Park	300	12″	Clay		180.95
	400	10″	Clay		
James st., Cedar st., northerly	289	15″	Cem.		924.38
	534	12″	Cem.		
Jefferson ave., North Main to Chestnut st.	299	20″	Clay		
	299	18″	Clay		
See private ways also.	276	15″	Clay	1,663.86	
	60	12″	Clay		
	414	12″	Cem.	492.50	
	78	6″	Clay	37.89	
					2,194.25
John st., Fulton to Plainfield st.	652	12″	Cem.		420.18
Johnson st., Dickinson st. to Pasadena ave.	1,964	18″	Clay		3,756.87
Johnson st., I. O., Main to South st.	500	20″	Clay		1,254.26
	463	18″	Clay		
Keith st., Belmont ave. to Dickinson st.	551	12″	Clay	1,106.40	
	551	10″	Clay		
*Dickinson st., southerly.	350	15″	Clay		
	301	12″	Clay	823.06	
	186	10″	Clay		
					1,929.46
Kensington ave., Oakland to Earl st.	451	18″	Clay	1,179.27	
	402	15″	Clay		
Earl st. to Pasadena ave.	567	12″	Clay	605.63	
	260	10″	Clay		
					1,784.90
Kenwood park, Belmont ave., northerly	130	12″	Clay		139.96
	1,127	10″	Clay		
Kenwood terrace, Belmont to Sumner ave.	218	12″	Clay		305.66
	197	10″	Clay		

* Surface drainage only.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Kibbe ave., Summer to Worthington st.....	260	18″	Clay		$552.92
***Kibbe Hollow**, northerly of Worthington st.....	447	24″	Clay		....
King st., Walnut to Hancock st.....	504	15″	Cem.	$921.37	
	441	12″	Cem.		
Hancock to Logan st....	311	20″	Clay		
	399	18″	Clay	2,650.91	
	686	15″	Clay		
	238	12″	Clay	701.29	
	239	10″	Clay		
*Westford to Wilbraham ave.....	427	10″	Clay	321.81	
					4,595.38
Knox st., Mill river to Windsor st.....	830	15″	Cem.	113.58	
	437	24″	Clay	1,144.10	
Windsor st., southerly...	34	15″	Clay	47.88	
					1,305.56
Ladd st., Eastern ave. to Logan st.....	243	15″	Clay		424.92
	304	12″	Clay		
Lafayette st., St. James ave. to Amherst st.....	582	12″	Clay		545.34
	21	10″	Clay		
Laurel st., Conn. river to Plainfield st.....	888	18″	Cem.	2,303.07	
	60	18″	Clay	282.48	
	20	18″	Clay	44.62	
					2,630.17
Laverne ave., Bellevue to Marengo ave.....	211	10″	Clay		....
Lebanon st. (see Hancock)	....	3′-6″x5′-3″	Brick	....	
Hancock st., westerly.....	158	2′-0″x3′-0″	Brick	1,495.77	
Hancock to Eastern ave..	606	18″	Cem.	1,842.70	
	816	15″	Cem.		
					3,338.47
Ledyard st., Armory st., northwesterly.....	478	10″	Clay		321.39
Lenox st., Sumner ave., southerly.....	465	10″	Clay		53.58
Lester st., Sumner ave. to Vermont st.....	286	12″	Clay		324.11
	279	10″	Clay		
Lexington ave., Chestnut to Massasoit st.....	668	12″	Clay	546.52	
Massasoit st., easterly ...	145	2′-0″x3′-0″	Con.	594.63	
					1,141.15

*Sanitary sewer.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Leyfred terrace, Belmont ave., northerly.....	300 317	18″ 15″	Clay Clay		$957.30
Liberty st., Garden brook to Main st.....	118	12″	Clay	$179.19	
Garden brook to Chestnut st.....	70 172 967 171	1′-6″x1′-7″ 12″ 15″ 8″	Brick Cem. Cem. Cem.	1,101.78	
Chestnut to Webster st...	784 659 684	2′- 4″x3′-6″ 1′-10″x2′-9″ 2′- 2″x3′-3″	Brick Brick Brick	9,123.49	
Webster to Armory st.	366 1,282 317 449	3′- 0″x4′-6″ 2′- 2″x3′-3″ 1′-10″x2′-9″ 2′- 2″x3′-3″	Brick Brick Brick Brick	5,383.15 2,539.81	
Armory to Home st.....	1,194 1,103 714	24″ 18″ 15″	Clay Clay Clay	5,227.99	
					23,555.41
Lillian st., Oak st., easterly..	297	12″	Clay		232.47
Lincoln st., Magazine to Federal st.....	823	12″	Clay		676.54
Linden st., Chestnut to Cass st.....	470 862	18″ 15″	Cem. Cem.		1,318.15
Litchfield st., Belmont ave. to Fairfield st.....	159	15″	Clay	335.11	
Garfield st , northerly ...	69	6″	Clay	7.10	
					342.21
Locust st., York to Mill st.	84 364 686	3′-0″x4′- 6″ 2′-9″x4′-1½″ 2′-6″x3′- 9″	Brick Brick Brick		6,804.18
Logan st., Collins st., southerly.....	97	10″	Clay	109.36	
Collins to Ladd st.....	183	10″	Clay	140.36	
Ladd st., northerly.....	88	10″	Clay	67.64	
Granville st., northerly ..	200	10″	Clay	147.48	
					464.84
Lombard st., Water st., easterly.....	500	12″	Cem.		376.60
Longfellow terrace, White st., westerly.....	246 200	12″ 10″	Clay Clay		290.03

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Longhill st., submerged outlet	26	18″	Clay		
	290	18″	W'd	$5,387.70	
	28	18″	C-ir.		
Conn. river to Washington ave.	1,310	24″	Clay	2,086.09	
(See Washington ave.)	346	2′-4″x3′-6″	Brick	1,936.97	
Washington ave., northerly	399	15″	Clay		
	512	12″	Clay	1,027.66	
	160	10″	Clay		
Sumner ave., southerly	356	8″	Clay	386.61	
Warner pl. to Sumner ave.	423	10″	Clay	379.51	
Main st. to Warner place.	136	24″	Clay		
	265	18″	Clay		
	350	15″	Clay	2,608.25	
	400	12″	Clay		
	240	10″	Clay		
	90	2′-0″x3′-0″	Con.	447.63	
					$14,260.42
Loring st., Water st., easterly	607	12″	Cem.	733.41	
	40	12″	Clay	48.34	
					781.75
Lowell st., Conn. river to Plainfield st.	305	18″	Clay		
	396	15″	Clay		986.21
	396	12″	Clay		
	283	10″	Clay		
Lyman st., Main to Chestnut st.	1,335	2′-0″x3′-0″	Brick	6,113.12	
Chestnut to Spring st.	418	15″	Clay	1,783.33	
	302	15″	Cem.	695.83	
					8,592.28
Lyndale st., Belmont ave., northerly	350	15″	Clay		
	300	12″	Clay		952.60
	324	10″	Clay		
Lyons st., I. O., Main st., northerly	261	18″	Clay		389.58
Madison ave., Central st., northerly	250	12″	Clay		737.57
	287	10″	Clay		
Magazine st., Worthington to Lincoln st.	682	18″	Cem.		1,211.05
	249	15″	Cem.		

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Magnolia terrace, east side, Sumner to Spruceland ave.	620	10″	Clay	$1,233.46	
west side, Sumner to Spruceland ave.	621	10″	Clay		
overflow connection between east and west side	62	8″	Clay	26.00	
Washington to Spruceland ave.	362	24″	Clay	21.08	
	602	12″	Clay		
					$1,280.54
Main st., Pecousic ave. to Longhill st.	191	2′-4″x3′-6″	Con.	1,077.51	
Mill river to Mill st.	258	10″	Clay	342.25	
Locust to Mill st.	385	15″	Clay	1,809.52	
	394	12″	Clay		
Mill st., southerly.	55	15″	Cem.	96.72	
York st. to B. & A. R. R.	56	7′-0″ cir.	Brick	20,812.99	
	1,772	6′-6″ cir.	Brick		
	906	5′-6″ cir.	Brick		
	990	5′-0″ cir.	Brick		
	1,624	3′-4″x5′-0″	Brick	34,453.56	
	864	2′-4″x3′-6″	Brick		
	263	12″	Clay	164.82	
Cypress to Emery st.	298	15″	Clay	1,210.56	
	270	12″	Clay		
Emery st., southerly.	278	12″	Cem.	389.20	
Emery to Sargeant st.	341	24″	Clay	2,539.81	
	442	20″	Clay		
	480	18″	Clay		
	186	15″	Clay		
					62,896.94
Main st., I. O., Chicopee river to Pine st.	2,321	2′-4″x3′-6″	Brick	7,636.81	
Pine to Cedar st.	500	18″	Cem.	870.78	
	185	15″	Cem.		
	103	12″	Clay	128.49	
Cedar to Lyons st.	1,110	2′-0″x3′-0″	Brick	5,068.28	
Chicopee river through private land and Main st. to Beaudry st.	699	18″	Clay	1,530.17	
	232	15″	Clay		
	212	10″	Clay		
Parker st., westerly.	409	12″	Clay	448.86	
Lyons st., easterly.	205	24″	Clay	1,334.58	
	245	18″	Clay		
	129	12″	Clay		
					17,017.97

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Malden st., Allen st., southerly	542	15″	Clay		
	291	12″	Clay		$25.75
	494	10″	Clay		
Manhattan st., Eastern ave. to Walnut st.	290	15″	Clay		
	645	12″	Clay		862.70
	205	10″	Clay		
Maple st., State to Temple st.	315	18″	Clay	$675.51	
	....	...	....	51.55	
Park to High st.	225	18″	Clay	505.21	
Union st., southerly	515	18″	Cem.	959.13	
	135	12″	Cem.		
Central st., southerly	33	18″	Cem.	160.95	
	388	12″	Cem.		
	784	12″	Clay	1,289.58	
Pine st., northerly	195	15″	Cem.	1,093.44	
	522	12″	Cem.		
					4,735.37
Mapledell st., State st., northerly	337	15″	Clay		
	300	12″	Clay		70.80
	346	10″	Clay		
Maplewood ter., Fort Pleasant ave., easterly	682	15″	Clay		
	329	12″	Clay		22.21
	178	10″	Clay		
Marble st., Main st., easterly	222	18″	Cem.		
	586	15″	Cem.		1,248.12
	242	12″	Cem.		
Marengo park, Belmont ave., easterly	443	15″	Clay		
	612	12″	Clay		117.62
	778	10″	Clay		
Margaret st., Water st., westerly	520	12″	Cem.	540.89	
Water st., easterly	825	12″	Cem.	855.32	
	30	12″	Clay	31.41	
					1,427.62
Marion st., Bay st., southerly	833	12″	Clay	915.66	
Chapin st., easterly	94	10″	Clay	25.89	
	319	8″	Clay		
					941.55

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Market st., State st., northerly	119	10″	Clay	....	
Sanford st., southerly	200	12″	Clay	$412.04	
Sanford st. to Harrison ave.	301	15″	Clay	1,197.72	
	350	12″	Clay		
Harrison ave., southerly	154	12″	Cem.	....	
					$1,609.76
Marshall place (see Melrose st.).					
Mason place, Dickinson st., southerly	200	12″	Clay		433.02
	276	10″	Clay		
Mason st., State to Pease st.	349	15″	Clay		746.99
	359	12″	Clay		
Massachusetts ave., Wilbraham road, southerly	300	15″	Clay		
	300	12″	Clay	976.70	
	227	10″	Clay		
Westford circle, northerly				47.67	
					1,024.37
Massasoit place, Massasoit st., easterly	381	12″	Clay		....
Massasoit st., Carew st., northerly	709	12″	Cem.	579.69	
	131	10″	Clay	124.62	
Lexington ave., southerly	300	12″	Clay	366.86	
	298	10″	Clay		
Montmorenci st. to Lexington ave.	354	2′-2″x3′-3″	Con.	1,468.20	
Montmorenci st., northerly	152	10″	Clay	113.14	
Pratt st., southerly	149	10″	Clay	218.09	
					2,870.60
Mattoon st., Chestnut to Salem st.	356	1′-4″x2′-0″	Brick		778.21
	87	15″	Cem.		
Maynard st., State st. to Shattuck ave.	431	15″	Clay		670.82
	400	12″	Clay		
McKnight st., Catharine to Sherman st.	255	15″	Cem.	421.42	
	30	15″	Clay	56.78	
Catharine to Bowles st.	141	10″	Cem.	67.27	
	26	10″	Clay	75.32	
Bowles st. to Girard ave.	119	12″	Cem.	81.85	
	263	10″	Clay	233.51	
					936.15

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Mechanic st., Water st., westerly	302	12″	Cem.	$205.25	
	20	8″	Clay	72.99	
					$278.24
Medford st., Birnie ave., easterly	390	12″	Clay		367.29
	183	10″	Clay		
Melrose st., sewer between Hickory and Melrose st.	429	18″	Clay		
Eastern ave. to Walnut st.	263	15″	Clay		
	558	10″	Clay		
Marshall place, Eastern ave. to Walnut st	415	10″	Clay		1,577.08
	169	8″	Clay		
Cottage ave., Melrose st. to Marshall place	74	12″	Clay		
Merrick ave., King st., southerly	275	12″	Cem.	48.50	
	24	12″	Clay	29.26	
					77.76
Merwin st., North Main to Chestnut st	774	15″	Clay		....
Middlesex st., Wilbraham road, southerly	296	15″	Clay		580.26
	304	12″	Clay		
Mill river, intercepting sewer, Mill river to Locust st	370	5′-3″ cir.	Brick	6,066.64	
	691	4′-0″ cir.	Brick		
Locust to Hickory st	587	4′-0″ cir.	Brick		
	131	3′-6″x5′-3″	Brick		
	1,743	5′-9″ cir.	Brick	42,706.00	
	779	4′-3″ cir.	Brick		
	1,611	3′-3″ cir.	Brick		
*in Mill and Hickory sts.	833	2′-2″x3′-3″	Brick	9,355.23	
*Hickory st. to Gunn square brook by northerly shore of Watershops pond	4,495	2′-2″x3′-3″	Brick	45,545.71	
					103,673.58
Mill st., Main st., easterly	236	8″	Cem.	75.45	
Locust to Pine st	943	2′-6″x3′-9″	Brick	4,764.79	
Knox to Maple st	352	18″	Clay	668.24	
Dickinson st., easterly	325	24″	Clay	619.85	
					6,128.33

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Monmouth st., Dorchester st., northerly and easterly	199	12″	Clay	$218.15	
	171	10″	Clay	121.75	
Yale st., westerly	64	12″	Clay	45.95	
	278	10″	Clay	281.47	
Berkeley st., northwesterly	350	12″	Clay	235.62	
					$902.94
Monroe st., Hancock st. to Eastern ave.	611	18″	Cem.		
	789	15″	Cem.		1,983.29
Eastern ave. to Colton st.	316	12″	Cem.		
Monson ave., Greene st., northerly	200	8″	Clay		....
Montmorenci st., Chestnut to Massasoit st.	64	12″	Clay	74.82	
	612	2′-10″x4′-5″	Con.	2,725.07	
					2,799.89
Montrose st., State to Burr st.	338	15″	Clay		
	217	12″	Clay		75.74
	329	10″	Clay		
Mooreland ave., Carew st., northerly to Van Horn ave.	601	18″	Clay		
	301	15″	Clay		1,467.66
	299	12″	Clay		
	212	10″	Clay		
Morgan st., Garden brook to Main st.	252	12″	Cem.	199.08	
Garden brook to North st.	25	18″	Cem.	48.07	
	634	18″	Clay	1,460.31	
					1,707.46
Morris st., Main st., easterly	915	2′-0″x3′-0″	Brick	2,942.83	
	496	12″	Cem.	359.07	
					3,301.90
Mountainview st., Forest Park ave., easterly	297	12″	Clay		
	297	10″	Clay		28.19
Mulberry st., Maple st., easterly and northerly	426	15″	Clay		
	270	12″	Clay	873.04	
	629	12″	Cem.	595.59	
	246	10″	Clay	233.59	
west from Ridgewood terrace	144	15″	Clay	....	
					1,702.22
Murray Hill ave., Liberty st., northerly	....	....	Clay		96.24
Myrtle st., Card Factory Pond brook, northerly	107	10″	Clay		
	237	8″	Clay		69.76

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Myrtle st., I. O., Main to Worcester st.	377	24″	Clay	$1,003.44	
Worcester st., southerly.	378	10″	Clay	355.34	
Berkshire st., southerly ..	180	10″	Clay	189.63	
Hampshire to Essex st...	275	10″	Clay	310.44	
					$1,858.85
Nelson ave., Greene st., northerly	90	12″	Cem.	27.96	
Lebanon to King st.	188	10″	Cem.	126.54	
	67	10″	Clay	93.63	
					248.13
Nelson st., Nursery st., easterly	308	24″	Clay		....
New st., E. Court st., northerly	237	12″	Cem.	213.02	
	33	8″	Clay	14.18	
Dwight st., westerly.	164	10″	Clay	203.79	
					430.99
Newland st., Plainfield st., westerly	350	18″	Clay		
	349	15″	Clay		1,735.99
	251	12″	Clay		
Newman st., Knox st., westerly	175	12″	Cem.		11.49
Noel ave., Mill st., southerly	204	20″	Clay		
	146	18″	Clay		569.64
Norfolk st., Wilbraham road, southerly	300	15″	Clay		
	300	12″	Clay	566.08	
	229	10″	Clay	155.85	
					721.93
North st., Ferry st., northerly	148	10″	Clay	223.34	
Carew st., northerly.	190	8″	Cem.	84.88	
Church to Grosvenor st..	68	18″	Cem.	157.13	
Morgan to Ringgold st...	198	18″	Cem.	356.84	
Osgood to Hebron st.	130	18″	Clay	426.85	
	165	10″	Clay		
Bancroft st. to Brookline ave.	302	18″	Clay	411.55	
Bancroft st., northerly ...	153	12″	Cem.	217.15	
	64	12″	Clay		
Jefferson ave., northerly..	233	8″	Clay	197.21	
Calhoun st., northerly ...	256	8″	Clay	48.13	
Waverly to Grove st. ...	362	12″	Clay	302.86	
Harriet st., southerly	86	8″	Clay	....	
Harriet st., northerly	150	10″	Clay	106.43	
					2,532.37

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Northampton ave., Wilbraham road, southerly . .	1,101	12″	Clay	$830.79	
Gunn square, northerly..	126	10″	Clay	103.71	
Gunn square to King st...	249	12″	Clay	325.24	
	202	10″	Clay		
					$1,259.74
North Church ave., Cook's ave., easterly.....	209	10″	Cem.		
Cook's ave., westerly (for cost see Cook's ave.) ...	133	10″	Cem.		....
No. Main st., Morgan st., southerly.....	232	8″	Clay	208.50	
Morgan st., northerly....	173	8″	Clay	90.69	
Osgood st., southerly....	199	10″	Clay	641.23	
Arch to Osgood st.....	730	15″	Cem.	713.66	
*Arch st. to Jefferson ave..	185	2′-2″x3′-3″	Brick	974.27	
Jefferson ave. to Grove st..	359	24″	Clay		
	420	20″	Clay	2,568.01	
	285	15″	Clay		
Grove st., northerly.....	170	12″	Clay	226.45	
Douglas to Harriet st.....	551	1′-8″x2′-6″	Brick	1,874.35	
Harriet to Waverly st.....	250	24″	Clay	470.75	
Douglas to Eagle st.....	326	2′-4″x3′-6″	Brick	1,840.24	
	272	1′-10″x2′-9″	Brick		
Eagle st., northerly.....	181	24″	Clay	538.21	
Wason ave., southerly ...	215	2′-0″x3′-0″	Brick	860.00	
	349	1′-8″x2′ 6″	Con.	1,577.72	
Wason ave., northerly...	600	12″	Clay	462.77	
Chicopee line, southerly.	106	15″	Clay	184 06	
					13,230.91
Norwood st., Main to Hanover st.....	1,051	12″	Cem.		1,156.64
Nursery st., Liberty to Franklin st.....	694	2′-8″ cir.	Brick	2,284.52	
Franklin st., northerly ...	587	2′-8″ cir.	Brick	....	
					2,284.52
Oak st., Union to State st..	741	2′-0″x3′-0″	Con.	3,092.11	
Union to Tyler st.....	220	18″	Clay	752.00	
	268	15″	Clay		
Walnut to Tyler st.....	177	18″	Clay	297.10	
					4,141.21
Oak st., I. O., Chicopee river to Main st.....	684	4′-0″ cir.	Con.	4,353.51	
north from Main st.....	179	15″	Cem.	637.00	
	171	12″	Cem.		
Main st., southerly.....	590	2′-2″x3′-3″	Brick	2,345.84	
brick sewer to Hampshire st.....	797	24″	Clay	1,652.79	

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Hampshire st., southerly.	285	18″	Clay		
	300	15″	Clay	$1,562.43	
	400	12″	Clay		
					$10,551.57
Oak Grove ave., State to Center st.	349	18″	Clay		
	327	15″	Clay	....	
	254	12″	Clay		
Center st., northerly	492	10″	Clay	198.85	
Bay st., southerly	350	18″	Clay		
	350	15″	Clay	1,089.41	
	301	12″	Clay		
	50	10″	Clay	42.81	
					1,331.07
Oakland st., Belmont ave., southerly	311	10″	Clay	330.77	
Belmont ave. to Dickinson st	895	24″	Clay	2,218.71	
Dickinson to Orange st.	254	24″	Clay		
	350	18″	Clay	1,619.20	
	170	12″	Clay		
	218	8″	Clay	110.79	
Allen to Orange st.	625	18″	Clay		
	304	15″	Clay	1,428.06	
	193	12″	Clay		
	404	10″	Clay		
Sumner ave. to Garfield st.	280	12″	Clay	468.60	
	221	10″	Clay		
					6,176.13
Olive st., Eastern ave., to Logan st	540	10″	Clay		439.17
Orange st., Oakland st., easterly	583	8″	Clay		
White st., westerly	381	12″	Clay		1,099.99
	649	10″	Clay		
White st., easterly	924	10″	Clay		
Orchard st., Plainfield st., westerly	325	20″	Clay		
	301	15″	Clay		1,015.67
	297	12″	Clay		
	494	10″	Clay		
Orlando st., Sumner ave., southerly	127	12″	Clay	310.17	
	240	10″	Clay		
Belmont ave., northerly.	246	12″	Clay	396.28	
	193	10″	Clay		
					706.45
Orleans court, Orleans st., westerly	205	8″	Clay		....

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Orleans st., Union st., northerly	39	12″	Cem.	$36.23	
	310	12″	Clay	456.19	
	330	10″	Clay		
Tyler st., northerly	188	10″	Cem.	187.74	
Pendleton ave., northerly.	231	12″	Cem.	327.73	
					$1,007.89
Ormond st., Belmont to Sumner ave	275	10″	Clay		252.85
Osgood st., Garden brook to Main st	257	12″	Cem.	320.94	
Garden brook to North st.	588	18″	Cem.	1,261.32	
	92	18″	Clay	174.87	
					1,757.13
Oxford st., Riverview terrace, northerly	63	12″	Clay	....	
	227	12″	Clay	512.94	
	291	10″	Clay		
					512.94
Ozark st., Grand ave., southerly	456	10″	Clay		61.80
Palmer ave., Locust st., easterly	351	18″	Clay	1,190.78	
	337	15″	Clay		
	14	12″	Cem.	....	
					1,190.78
Park st., Main to Willow st.	395	24″	Clay	1,609.31	
Willow to Maple st	200	24″	Clay	1,431.05	
	557	18″	Clay		
					3,040.36
Parker st., I. O., Chicopee river to Main st	32	24″	Clay	261.81	
	221	12″	Clay		
Main st., southerly	1,098	24″	Clay	2,486.05	
*Loon pond to B. & A. R.R.	1,227	12″	Clay	1,266.36	
					4,014.22
Parkside ave., Carew st. to Van Horn ave	350	18″	Clay		
	350	15″	Clay		1,180.15
	351	12″	Clay		
	300	10″	Clay		
Parkwood st., Sumner ave., southerly	215	12″	Clay		70.08
	204	10″	Clay		
Pasadena st., White st., southerly	156	12″	Clay		258.61
	291	10″	Clay		

* Surface drainage only.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Pasco st., I. O., Essex st., southerly	724	10″	Clay		$607.80
Patton st., Garden brook to Main st	214	10″	Clay	$173.73	
Garden brook, easterly	352	18″	Clay		
	349	15″	Clay	1,572.67	
	537	12″	Clay		
					1,746.40
Peabody lane, Willow st., westerly	292	10″	Clay		332.17
Pearl st., Chestnut to Spring st	514	24″	Clay	1,792.62	
	447	20″	Clay		
Spring st., easterly	190	1′-6″ cir.	Brick	96.16	
					1,888.78
Pease st., Catharine to Bowles st	250	12″	Clay		15.05
Pecousic ave., Mill river to Main st	352	2′-8″x4′-0″	Con.		2,155.17
Penacook ave., Governor to Home st	106	12″	Clay		76.42
Pendleton ave., Walnut to Hancock st	287	18″	Cem.		
	524	15″	Cem.	1,663.94	
	429	12″	Cem.		
Hancock st. to Eastern ave	600	18″	Cem.	1,494.53	
	793	15″	Cem.		
					3,158.47
Phoenix st., Liberty st., easterly	236	18″	Clay		
	250	15″	Clay		840.32
	89	10″	Clay		
Pine st., Mill to Cedar st.	740	2′- 6″x3′-9″	Brick		
	1,529	3′- 6″x5′-3″	Brick	13,659.54	
	500	3′-10″x5′-9″	Brick		
Cedar to Walnut st	62	18″	Cem.		
	884	15″	Cem.	1,781.65	
	631	12″	Cem.		
					15,441.19
Pine st., I. O., Main st., easterly	1,896	24″	Clay		4,170.03
Pine st. court, Pine st., easterly	348	10″	Cem.		266.39

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Pineywoods ave., Washington ave., northeasterly.	334	15″	Clay		
	263	12″	Clay	....	
Magnolia terrace, westerly	350	10″	Clay	$25.62	
Magnolia terrace to Washington road.....	343	20″	Clay		
	404	12″	Clay	....	
Washington road to Forest Park ave.....	341	12″	Clay	....	
					$25.62
Plainfield st., Sargeant to Fulton st.....	414	18″	Clay		
	537	15″	Clay		
	456	12″	Clay	2,525.13	
	244	10″	Clay		
Washburn to West st....	154	12″	Clay		
	203	10″	Clay	427.50	
Washburn to Roseland st.	331	2′-8″x4′-0″	Brick	1,555.00	
	303	2′-6″x3′-9″	Brick	2,367.93	
	287	2′-4″x3′-6″	Brick		
	294	2′-2″x3′-3″	Brick	4,518.58	
Rowland to Division st..	648	2′-2″x3′-3″	Con.	3,402.82	
	148	24″	Clay	535.51	
Rowland st. to Talcott ave.....	288	24″	Clay		
	299	20″	Clay	1,208.95	
Talcott ave., northerly...	216	10″	Clay	158.46	
Wason to Demond ave...	304	24″	Clay		
	249	20″	Clay	1,253.59	
	53	18″	Clay		
					17,953.47
Pleasant st., Bay st., southerly.....	296	12″	Cem.		249.74
Plymouth st., Fulton st., easterly.....	375	10″	Clay		196.59
Pomona st., Sumner ave., northerly.....	580	12″	Clay	459.94	
	297	10″	Clay	204.92	
					664.86
Portland st., Birnie ave., easterly.....	251	12″	Clay		
	224	10″	Clay		351.35
Portsmouth st......	212	12″	Clay		253.65
Pratt st., Chestnut to Marvin st.....	350	15″	Clay		
	299	12″	Clay		869.53

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Prescott st., Belmont ave., northerly	340	10″	Clay		$195.22
Prince st., King to Lebanon st.	329	12″	Cem.		333.15
Princeton st., Bay to Amherst st.	103	18″	Cem.	$289.08	
	689	18″	Clay	724.15	
	151	15″	Clay	177.72	
Yale to Vassar st.	665	12″	Cem.	....	
St. James ave. to Cornell st.	298	12″	Cem.	195.52	
					1,386.47
Private ways and private lands:					
Armory Hill sewer from Armory st., through private grounds east of Armory st. to Worthington st.	150	2′-5″x3′-7½″	Brick		
	900	2′-8″x4′- 0″	Brick		5,318.04
	249	2′-1″x3′-1½″	Brick		
Card-factory Pond, Woodworth ave., westerly between High and State sts.	751	12″	Cem.	408.75	
in front and around High school	492	24″	Clay	848.26	
High school to State st.	88	24″	Clay	192.35	
					1,449.36
Cemetery brook, Morris st., easterly, north of Central st.	174	24″	Clay		569.59
Chester to Hancock st.	218	8″	Clay		....
Garden brook sewer, north from Liberty st. to B. & M. R. R. via Arch st. about 300 feet east of Main st.	2,936	5′-6″ cir.	Brick		
	766	5′-0″ cir.	Brick	47,577.34	
	1,303	4′-6″ cir.	Brick		
	236	3′-0″x4′-6″	Brick		
Worthington st., northeasterly to Lyman st., thence via Railroad land to Armory st.	3,274	4′-7½″ cir.	Brick	29,761.32	
	952	4′-1″ cir.	Brick		
					77,338.66
Hickory to Melrose st. (see Melrose st.)	....	18″	Clay		....

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Jefferson ave., passage way in rear of lots on south side	135	2'-0"x3'-0"	Brick	....	
	518	12"	Cem.	$364.84	
					$364.84
Main to Dale st., between Hubbard ave. and William st	655	12"	Cem.		441.92
Passage way, Ferry to Liberty st., 80 ft. east of Main st	210	12"	Clay		402.70
Potter place, State st., northerly	396	15"	Clay		
	301	12"	Clay		....
	274	10"	Clay		
Sewer in ave. Hampden st. southerly, near Water st	111	12"	Clay		147.14
Springfield st. and Glenwood, via Atwater Glen	677	3'-6" cir.	Brick		
	598	3'-3" cir.	Brick		
	389	4'-3" cir.	Brick		
	1,292	3'-0" cir.	Brick	14,614.89	
	40	2'-0" cir.	Brick		
	16	2'-10"x4'-3"	Brick		
	1,294	24"	Clay	3,889.98	
					18,504.87
Prospect st., Chestnut to Massasoit st	218	18"	Clay		
	199	15"	Clay	623.53	
	196	12"	Clay		
Massasoit st., easterly	325	12"	Clay	726.53	
	423	10"	Clay		
					1,350.06
Pynchon st.	950	2'-0"x3'-0"	Brick		3,108.02
Quebec st., I. O., Lyons st., easterly	209	15"	Clay		402.82
Queen st., Walnut to Hancock st	634	12"	Cem.		634.22
Quincy st., Oak to Stebbins st	860	12"	Cem.	651.15	
Hancock to Stebbins st	522	12"	Cem.	549.58	
Hancock st. to Eastern ave	637	18"	Cem.	1,766.39	
	765	15"	Cem.		
Colton st. to Eastern ave.	208	10"	Clay	156.87	
					3,123.99

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Railroad st., Water st., easterly	351	12″	Clay		$490.75
Randolph st., Maplewood terrace, easterly	250	12″	Clay		22.96
	251	10″	Clay		
Ranney st., Wilmont st., northerly	200	10″	Clay	$151.76	
Kensington ave., northerly	206	10″	Clay	149.18	
					300.94
Rapalus ave., I. O., Parker st., southerly	442	12″	Clay		429.47
Raymond ave., Carew st., northerly	277	10″	Clay		217.32
Reed st., State st., southerly	219	12″	Clay		134.79
	309	10″	Clay		
Revere st., White st., southerly	750	20″	Clay		
	250	10″	Clay		23.32
	209	8″	Clay		
Richelieu court, Adams st., southerly	160	12″	Clay		525.44
	315	10″	Clay		
Richelieu place, Richelieu court, easterly	100	8″	Clay		....
Ridgewood place, Mulberry st., northerly	400	12″	Clay	29.46	
	76	10″	Clay	101.95	
					131.41
Ridgewood terrace, Mulberry st., westerly	226	10″	Clay	....	
Union st., southerly	137	10″	Clay	118.83	
					118.83
Rimmon ave., Green lane to Weaver ramble	859	18″	Clay		....
Weaver ramble, northerly	200	12″	Clay		....
Ringgold st., North to Chestnut st	117	18″	Cem.		744.53
	632	12″	Cem.		
Ripley place, St. James ave., southerly	230	10″	Cem.		163.48
Riverview st., Riverview terrace to Chase ave	63	10″	Clay	....	
	310	10″	Clay	354.50	
Forest Park ave., southerly	299	10″	Clay	239.39	
					593.89

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Riverview terrace, Fort Pleasant ave., easterly	298	15″	Clay		
	322	12″	Clay		....
	105	10″	Clay		
Rochelle st., Wilbraham road, southerly	424	18″	Clay		$452.68
Rogers ave., I. O., Main st., southerly	97	15″	Clay		312.13
	152	12″	Clay		
Roseland st., Plainfield st., westerly	350	18″	Clay		
	350	15″	Clay		1,352.31
	173	12″	Clay		
Rowland st., Conn. river to	579	5′-3″ cir.	Brick		
North Main st., including 630′ in Douglas st.	51	1′-8″x2′-6″	Brick		32,489.36
	1,247	6′-6″ cir.	Brick		
	1,330	6′-0″ cir.	Brick		
Rutland st., Wilbraham road to State st	199	8″	Clay		147.15
Rutledge ave., Main st., easterly	574	24″	Clay		49.43
Sachem st., Dickinson st., northerly	330	10″	Clay		345.31
Salem st., Pearl st., south and east	283	18″	Cem.		
	99	15″	Cem.		804.72
	290	12″	Cem.		
***Sanford st**	536	3′-2″x4′-9″	Brick		4,014.47
***Sargeant st.,** Fulton to Main (cost shown under Clinton st.)	920	4′-6″x6′-9″	Brick		....
School st., Union to Mulberry st	560	15″	Clay	$620.95	
Union st., northerly	258	10″	Clay	256.85	
					877.80
Scott st., White to Pomona st	300	12″	Clay		468.68
	347	10″	Clay		
Searle place, Walnut st., easterly	178	10″	Clay		231.61
Seventh st., Fulton to Main st	830	12″	Cem.		700.00
Sewer in avenue (see private ways).					
Sewer (see private ways).					
Sharon st., Garden brook to Main st	360	15″	Cem.	762.77	
Garden brook, easterly	601	18″	Cem.	1,273.96	
	463	12″	Cem.		
					2,036.73

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Shattuck st., Maynard st. to	200	10″	Clay		
Willard ave	143	8″	Clay		....
Willard ave., easterly	50	8″	Clay		....
Shefford st., Springfield st.,	293	12″	Clay		
westerly	350	10″	Clay		$601.41
Sheldon st., Birnie ave. to	311	12″	Clay		
N. Main st	317	10″	Clay		18.49
Sherman st., Bay to Clarendon st	175	12″	Cem.	$571.12	
Bay to McKnight st	443	12″	Cem.		
State to McKnight st	301	18″	Clay		
	301	15″	Clay	1,314.14	
	544	12″	Clay		
					1,885.26
Shillingford st., Eastern ave. to Sheffield st	640	12″	Clay		447.45
Silver st., Armory st., easterly	302	15″	Clay		
	297	12″	Clay		470.93
Smith st., Knox to Dorne st.	199	12″	Clay	196.57	
Dorne st., westerly	107	10″	Clay	136.68	
					333.25
Sorrento st., Sumner ave., northerly	325	12″	Clay	271.15	
Grenada terrace, northerly	367	10″	Clay	209.65	
					480.80
Spencer ave., Sumner ave., southerly	282	12″	Clay		
	315	10″	Clay		451.29
Spring st., south from Lyman st	281	15″	Cem.		
	130	12″	Cem.		
Worthington to State st	470	18″	Cem.	2,569.51	
	640	15″	Cem.		
	644	12″	Cem.		
Worthington st., northerly	132	12″	Clay	87.28	
Worthington to Summer st	183	5′-0″ cir.	Brick		
*	49	4′-3″x6′-0″	Brick	1,498.24	
					4,155.03
Springfield st., Atwater terrace, northerly	892	20″	Clay		
	360	18″	Clay		
	413	15″	Clay		3,337.44
	286	12″	Clay		
	437	10″	Clay		

* Segmental.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Springfield st. and Glenwood (see private ways).					
Spruce st., Central st., northerly	600	12″	Cem.		$609.90
Spruceland ave., Magnolia terrace, westerly	67	8″	Clay	....	
Beechwood ave., easterly.	242	8″	Clay	$136.48	
Beechwood ave., westerly.	299	8″	Clay	94.83	
Longhill st., easterly	450	10″	Clay	410.40	
					641.71
Stafford st., Armory st., westerly	402	10″	Clay		239.85
State st., Water st., westerly	70	12″	Cem.	45.27	
	91	12″	Cem.	71.19	
	82	12″	Clay	83.01	
Water to Main st	907	18″	Clay	1,199.78	
Main to Dwight st	636	18″	Clay	1,433.50	
*Dwight st. to High school	29	2′-8″x4′-0″	Brick		
	265	2′-2″x3′-3″	Brick	4,897.66	
	417	2′-0″x3′-0″	Brick		
At High school, connecting old with new	54	24″	Clay	161.88	
High school to Elliott st.	305	2′-0″ cir.	Brick	469.65	
High school to Walnut st.	726	2′-0″x3′-0″	Con.		
	306	2′-2″ cir.	Con.	6,442.79	
	1,440	2′-0″ cir.	Con.		
connecting new with old.	54	18″	Clay		
Walnut to Oak st	250	18″	Clay		
	253	15″	Clay	1,678.37	
	348	12″	Clay		
Federal st., easterly	695	2′-0″ cir.	Brick	1,062.40	
	130	12″	Clay	274.35	
Oak to Buckingham st.	2,110	18″	Cem.	2,819.99	
Hancock to Sherman st.	1,147	3′-4″x5′-0″	Brick	13,555.85	
Sherman to Chapin st.	492	3′-0″x4′-6″	Brick		
Chapin to Andrew st.	726	3′-0″x4′-6″	Brick		
Andrew st. to Oak Grove ave.	937	2′-10″x4′-3″	Brick	10,793.96	
east from Oak Grove ve. to Cortland st	548	2′-4″x3′-6″	Brick		
	283	2′-2″x3′-3″	Brick	5,042.79	
	352	2′-0″x3′-0″	Brick		
Cortland st., easterly	355	24″	Clay		
	112	18″	Clay	4,586.74	
	3,399	12″	Clay		
					54,619.18

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Stearns square (west roadway), Bridge st., northerly	172	12″	Clay		$205.83
Stearns square (east roadway), Bridge st., northerly	167	8″	Clay	$67.00	
Worthington st., southerly	148	12″	Clay	342.98	
					409.98
Stebbins st., Union to State st.	300	12″	Clay		596.89
	293	10″	Clay		
Sterns terrace, Central st., northerly	393	12″	Clay		605.10
St. James ave., State st., northerly	191	18″	Clay		
	467	12″	Clay	906.01	
	123	10″	Clay		
Bay st. to Ripley ave.	91	12″	Cem.	135.23	
Florida st. to Ripley ave.	469	12″	Cem.	500.89	
Florida st., northerly	417	18″	Cem.	1,073.90	
	300	12″	Cem.		
Clarendon to Westminster st.	248	15″	Cem.	404.60	
Clarendon st., northerly	138	8″	Clay	64.82	
Dartmouth to Harvard st.	385	2′-0″x3′-0″	Brick	2,738.53	
Harvard to Princeton st.	528	24″	Clay	1,587.44	
Princeton st., northerly	308	18″	Clay		
	249	15″	Clay	965.55	
	57	12″	Clay		
					8,376.97
Stockbridge st., Main st., easterly	777	18″	Cem.		1,084.57
Suffolk st., Wilbraham road, southerly	300	15″	Clay	294.06	
	300	12″	Clay	596.52	
	795	10″	Clay		
					890.58
Sullivan st., Armory st., easterly	395	12″	Clay		....
*Summer st., Spring to Armory st.	44	4′-3″x6′-0″	Brick		
	†1,344	4′-2″x6′-3″	Brick		24,048.88
	†1,093	2′-10″x4′-3″	Brick		
	†750	3′- 8″x5′-6″	Brick		
Sumner ave., Fort Pleasant ave. to Longhill st.	448	12″	Clay	815.24	
	358	10″	Clay		

* Segmental. † Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Fort Pleasant ave. to Randolph st.	673	2'- 0"x3'-0"	Brick		
Randolph st. to Washington road	360	1'-10"x2'-9"	Brick		
Washington road to Forest Park ave.	360	1'- 8"x2'-6"	Brick	$7,968.46	
Forest Park ave. to Greenleaf st.	367	1'- 6"x2'-3"	Brick		
Greenleaf st. to Belmont ave.	355	20"	Clay		
	851	18"	Clay		
	736	15"	Clay	2,915.88	
	272	12"	Clay		
	426	10"	Clay		
Belmont ave., easterly	100	8"	Clay	37.49	
*Dickinson to White st.	2,219	2'-8"x4'-0"	Brick	11,531.37	
White st. to Castle ave.	565	2'-2"x3'-3"	Brick	2,391.46	
	1,110	2'-2"x3'-3"	Con.	2,246.16	
	739	15"	Clay	1,645.60	
	879	12"	Clay		
					$29,551.66
Sumner terrace, Sumner ave., northerly	252	12"	Clay		440.44
	220	10"	Clay		
†**Sycamore st.,** Acorn to Bay st.	899	8"	Clay		352.24
Symonds ave., Worthington to Bridge st. (includes cost of Bond pl.)	300	15"	Cem.		696.89
Talcott ave., Fisk ave. to Plainfield st.	362	15"	Clay		549.57
	316	12"	Clay		
Taylor st., Main to Chestnut st.	330	20"	Clay		
	321	18"	Clay	2,099.63	
	197	15"	Clay		
	50	12"	Clay	51.79	
	341	12"	Cem.	463.50	
					2,614.92
Temple st., Maple to School st.	304	15"	Clay		
	300	12"	Clay	1,127.60	
	345	10"	Clay		
outlet into High school sewer	169	15"	Clay	171.71	
					1,299.31
Tenth st., Garden brook, easterly	300	18"	Clay		
	302	15"	Clay		1,256.39
	421	12"	Clay		
	4	8"	Clay		

* Elliptical. † Sanitary sewer.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Terrence st., Union to State st.	374	12″	Clay	$565.26	
	313	10″	Clay		
	48	10″	Cem.	34.02	
					$599.28
Thomas st., Birnie ave., easterly	451	10″	Clay		338.41
Thompson st., Worthington st., southerly	603	12″	Cem.	638.27	
St. James ave. to Bay st.	703	15″	Cem.	749.22	
State to Bay st.	852	12″	Cem.	653.12	
					2,040.61
Thorndyke st., Sumner ave., southerly	116	12″	Clay		148.93
Tracy st., Franklin st., southerly	14	10″	Clay	15.48	
	262	10″	Clay	.....	
					15.48
Trenton st., Dickinson st. to Commonwealth ave.	146	10″	Clay		125.74
Tyler st., Oak to Hancock st.	717	15″	Cem.	1,202.87	
	663	12″	Cem.		
Hancock st. to Eastern ave.	601	18″	Cem.	815.47	
	795	15″	Cem.	718.71	
Eastern ave., easterly	251	10″	Cem.	199.75	
					2,936.80
Union st., submerged outlet.	165	24″	Wood	1,604.45	
	48	24″	C. Iron	391.23	
Conn. river to Main st.	1,610	3′-4″x5′-0″	Brick	8,806.18	
	53	2′-0″x3′-0″	Brick		
Main to Oak st.	*718	3′-2″x4′-9″	Con.	13,447.59	
	951	2′-8″ cir.	Con.		
	1,021	2′-3″ cir.	Con.		
	1,504	2′-4″x3′-6″	Con.	7,638.58	
Oak to Orleans st.	404	15″	Cem.	467.96	
Hancock to Stebbins st.	261	2′-0″x3′-0″	Brick	2,307.33	
	335	1′-10″x2′-9″	Brick		
Stebbins to Orleans st.	428	20″	Clay	737.72	
Hancock st. to Eastern ave.	600	18″	Cem.	1,535.40	
	800	15″	Cem.		
Eastern ave., easterly	248	10″	Clay	152.56	
					37,089.00
Vassar st., Harvard st., northerly	550	12″	Cem.		153.37
Ventura st., Sumner ave., northerly	351	10″	Clay	289.51	
Grenada terrace, northerly	341	10″	Clay	223.28	
					512.79

* Elliptical.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Vermont st., Converse to Pomona st	258	15″	Clay		$524.78
	267	12″	Clay		
	225	10″	Clay		
Vernon st., Water st., easterly	639	15″	Cem.	$837.92	
Main st., westerly	216	12″	Cem.	310.68	
					1,148.60
Vine st., Main to Fulton st.	697	12″	Cem.		688.75
Vinton st., Liberty to Franklin st	357	12″	Clay	393.47	
	262	10″	Clay	252.13	
					645.60
Walden st., Dickinson st., easterly	166	8″	Clay	94.93	
Commonwealth to Belmont ave	296	10″	Clay	148.67	
					243.60
Walker st., Water st., westerly	650	12″	Clay		688.37
Walnut st., south from State st	69	1′-6″x1′-8″	Brick	85.23	
north from Charter ave	292	10″	Clay	418.30	
Union st. to Charter ave	279	12″	Cem.	482.50	
Union to Oak st	558	12″	Clay	792.64	
	17	12″	Cem.	20.50	
Cedar to Pine st	1,142	2′-0″x3′-0″	Brick	4,956.57	
Pine to Oak st	254	18″	Cem.	383.04	
Hancock to Cedar st	784	15″	Cem.	1,269.67	
Hancock st., southerly	180	12″	Cem.		
north from Manhattan st	249	10″	Clay	212.35	
Florence st., northerly	53	8″	Cem.	27.12	
Hickory to Florence st	1,026	12″	Clay	992.67	
					9,640.59
Walter st., Birnie ave. to No. Main st	385	12″	Clay		422.74
Waltham ave., Wilbraham road, southerly	911	12″	Clay		928.30
Wareham st., Grand ave., southerly	419	10″	Clay		21.24
Warner st., Fort Pleasant ave. to Longhill st	508	12″	Clay		
	198	10″	Clay	....	
	89	10″	Clay	51.88	
					51.88
Warriner ave., Locust st., easterly	448	12″	Clay		418.39
Washburn st., Conn. river to B. & M. R. R.	1,758	7′-0″ cir.	Brick		21,678.46

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Washington boulevard,					
Longhill st. to Pineywoods ave.	304	2′-4″x3′-6″	Brick	$5,032.68	
	823	2′-2″x3′-3″	Brick		
	308	18″	Clay		
	200	15″	Clay	868.79	
	242	12″	Clay		
	330	10″	Clay		
					$5,901.47
Washington road, Sumner ave., southerly	460	10″	Clay	56.78	
Pineywoods ave., northerly	141	10″	Clay	149.77	
	281	10″	Clay	....	
					206.55
Wason ave., Conn. river to Plainfield st.	451	3′-10″x5′-9″	Brick		
Plainfield st. to Fisk ave.	1,051	3′- 4″x5′-0″	Brick		
Fisk to Birnie ave.	634	3′- 2″x4′-9″	Brick		16,610.72
Birnie ave. to North Main st.	247	2′- 0″x3′-0″	Brick		
Water st., Gardner to Loring st.	474	1′-10″x2′-9″	Brick	1,219.79	
Loring st., northerly	345	12″	Cem.	237.38	
Union to Margaret st.	721	2′- 0″x3′-0″	Brick	2,367.61	
Union st., northerly	868	18″	Cem.		
Elm to State st.	275	18″	Cem.	508.75	
Elm to Pynchon st.	43	2′- 0″x3′-0″	Brick	198.00	
	498	2′- 6″x3′-6″	Brick	2,949.29	
Pynchon st., northerly	257	18″	Cem.	404.44	
	329	15″	Cem.	460.60	
	61	12″	Cem.	85.40	
Worthington st., southerly	209	10″	Clay	333.54	
Worthington to Hampden st.	327	15″	Cem.	457.80	
Hampden to Railroad st.	321	12″	Clay	638.58	
					9,861.18
Waverly st., North Main to Chestnut st.	473	20″	Clay		
	487	10″	Clay		1,268.03
Weaver ramble, Rimmon ave., westerly and northerly	480	12″	Clay		....
Webster st., Liberty to Franklin st.	601	12″	Clay		505.99
Welcome place, Bay st., northerly	238	8″	Clay		17.84

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Wellesley st., St. James ave. to Cornell st.....	236	12″	Clay		$540.30
	224	10″	Clay		
Wellington ave., Wilbraham road, southerly.....	287	15″	Clay		23.58
	244	12″	Clay		
	291	10″	Clay		
Wendell ave., Main st., easterly.....	458	15″	Clay		....
Westernview st., Forest Park ave., easterly.....	468	12″	Clay		539.60
	138	10″	Clay		
Westford ave., Wilbraham road, southerly.....	300	15″	Clay		
	300	12″	Clay	$676.23	
	350	10″	Clay		
***Westford circle** to King st.	541	12″	Clay	454.36	
					1,130.59
Westminster st., Bay to State st.....	300	15″	Clay		
	300	12″	Clay	705.11	
	201	10″	Clay		
St. James ave., southerly .	773	12″	Cem.	794.10	
					1,499.21
White st., Allen to Orange st.	747	24″	Clay	1,717.86	
	674	20″	Clay		
	274	18″	Clay	1,490.97	
Orange st. to Dawson ave.	388	15″	Clay	389.27	
	292	15″	Clay	275.73	
Gordon st. to Dawson ave.	192	10″	Clay	212.77	
Gordon st., southerly.....	690	12″	Clay	671.32	
	207	8″	Clay	84.45	
Sumner ave. to Lawrence st.....	1,266	24″	Clay	1,828.15	
Sumner ave., southerly...	1,028	20″	Clay	1,719.01	
					8,389.53
Whitney ave., Water st., westerly.....	450	12″	Cem.		257.32
Whittier ave., Sumner ave. to Longfellow terrace .	301	18″	Clay		
	299	15″	Clay		1,261.63
	301	12″	Clay		
	221	10″	Clay		
Wilbraham ave., Wilbraham road, southerly.....	1,125	12″	Clay	1,020.78	
Alden to Beverly st.....	999	10″	Clay		
	1,180	8″	Clay	1,121.36	
					2,142.14

* Sanitary sewer.

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Wilbraham road, State st., easterly	248	12″	Cem.	$157.79	
State st. to Northampton ave.	1,451	2′-0″x3′-0″	Brick	6,198.76	
Northampton ave. to Bristol st.	472	2′-6″x3′-9″	Brick		
	476	2′-4″x3′-6″	Brick		
	478	2′-2″x3′-3″	Brick	8,970.16	
	473	2′-0″x3′-0″	Brick		
	254	1′-10″x2′-9″	Brick		
	256	1′-8″x2′-6″	Brick		
Bristol st., easterly	263	20″	Clay	859.35	
	405	12″	Clay		
					$16,186.06
Wilcox st., Water st., easterly	548	15″	Cem.	1,000.75	
	327	12″	Cem.		
Water st., westerly	463	12″	Cem.	205.76	
					1,206.51
Willard ave., State st., northerly	282	18″	Clay		
	300	15″	Clay	785.26	
	241	12″	Clay		
Shattuck ave., southerly	215	8″	Clay	....	
					785.26
William st., Water to Main st.	875	12″	Cem.	918.26	
	32	12″	Clay	125.28	
Main to Dale st.	351	12″	Clay	906.35	
	288	10″	Clay		
Water st., westerly	76	15″	Cem.	459.79	
	425	12″	Cem.		
					2,409.68
Willow st., Cross to State st.	413	12″	Clay	791.42	
Cross to Park st.	265	12″	Clay	378.17	
Union to Park st.	216	18″	Cem.	325.32	
Union st. to Hubbard ave.	219	10″	Clay	204.39	
					1,699.30
Wilmont st., Dickinson to Revere st.	349	18″	Clay		
	450	15″	Clay		1,557.40
	386	12″	Clay		
Winchester st.	424	12″	Clay		357.96
Windsor st., Knox st., westerly	308	12″	Clay		
	266	10″	Clay		560.76

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SEWER SYSTEM.—CONTINUED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Winthrop st., Main st., easterly	52	18″	Cem.	$220.81	
	141	15″	Cem.		
	310	15″	Clay	1,045.76	
	230	12″	Clay		
					$1,266.57
Wolcott st., Armory st., northerly	220	10″	Clay	....	
	206	10″	Clay	192.49	
					192.49
Woodside terrace, Belmont ave., northerly	451	10″	Clay	321.97	
Forest Park ave., northerly	307	10″	Clay	....	
					321.97
Worcester ave., Plainfield st. to Fisk ave	854	15″	Cem.		156.04
Worcester st., I. O., Myrtle	4	24″	Clay	945.80	
to Chestnut st	290	20″	Clay		
	382	2′-0″x3′-0″	Brick	1,283.00	
Chestnut to Holly st	670	1′-10″x2′-9″	Brick	2,398.09	
Oak st., easterly	275	12″	Clay	542.93	
	212	10″	Clay		
Pine st., easterly	546	20″	Clay	768.42	
	224	18″	Clay	344.66	
	349	15″	Clay	510.13	
					6,793.03
Worthington st., submerged	194	24″	Wood	1,883.04	
outlet	22	24″	C. Iron	176.25	
*Conn. river to Main st	1,038	5′-7″x7′-0″	Brick	33,410.12	
*Main to Dwight st	821	5′-4″x7′-0″	Brick		
Dwight to Garden brook	566	4′-0″x6′-0″	Brick		
Garden brook to Spring st	738	4′-3″ cir.	Brick	4,361.35	
Spring st., branch north	35	5′-4″ cir.	Brick		
Spring st., branch south	47	2′-0″x3′-0″	Brick		
Spring st., easterly	40	18″	Cem.	614.35	
	242	15″	Cem.		
	251	12″	Cem.		
Autumn st., westerly	113	12″	Cem.	118.78	
near Sacketts ave	145	10″	Cem.	111.47	
West brook, easterly	329	15″	Clay	1,110.54	
	217	12″	Clay		
West brook to Autumn st	231	15″	Clay	727.56	
Sacketts ave., westerly	98	12″	Clay	207.28	
Sacketts to Kibbe ave	337	12″	Cem.	335.37	
Kibbe ave. to Federal st	794	15″	Clay	826.90	
Kibbe hollow, westerly to Magazine st	167	18″	Clay	381.28	

* Elliptical.

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SEWER SYSTEM.—CONCLUDED.

NAME OF SEWER.	Length in Feet.	Size.	Material.	Cost.	
Kibbe hollow to Bowdoin st.	833	2′-2″ cir.	Con.	$2,357.86	
near Magazine to Bowdoin st.	248	2′-8″x4′-0″	Brick		
	354	2′-1″x3′-1½″	Brick		
Bowdoin st. to St. James ave.	359	3′-4″x7′-2″	Brick	20,646.21	
	1,307	3′-4″x6′-9″	Brick		
					$67,268.36
X Court, Dickinson st., westerly and southerly	34	10″	Clay	84.24	
	192	10″	Clay	19.05	
					103.29
Yale st., Dartmouth to Princeton st.	350	24″	Clay		
	359	18″	Clay	1,770.13	
	233	15″	Clay		
Princeton st., northerly	712	12″	Clay	452.46	
					2,222.59
York st.	1,203	7′-0″ cir.	Brick		13,912.27
Total	658,828				$1,528,138.58

NOTE.—Sewers constructed by the city on private land or ways are indexed under Private ways.

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RECAPITULATION BY SIZES.

DESCRIPTION.	Length in Feet.	Size.	Material.
Segmental	93	6′- 0″x4′- 3″	Brick and cem. mortar.
Elliptical shaped	1,038	5′- 7″x7′- 0″	" " "
" "	821	5′- 4″x7′- 0″	" " "
" "	1,095	4′-10″x7′- 3″	" " "
" "	1,949	4′- 8″x7′- 0″	" " "
" "	1,170	4′- 6″x6′- 9″	" " "
" "	1,040	4′- 4″x6′- 6″	" " "
" "	2,340	4′- 2″x6′- 3″	" " "
" "	1,746	3′- 8″x5′- 6″	" " "
" "	830	3′- 4″x5′- 0″	" " "
" "	536	3′- 2″x4′- 9″	" " "
" "	819	3′- 0″x4′- 6″	" " "
" "	1,093	2′-10″x4′- 3″	" " "
" "	2,506	2′- 8″x4′- 0″	" " "
" "	5,778	2′- 2″x3′- 3″	" " "
" "	417	2′- 0″x3′- 0″	" " "
Egg shaped	566	4′- 0″x6′- 0″	" " "
" "	1,131	3′-10″x5′- 9″	" " "
" "	1,074	3′- 8″x5′ 6″	" " "
" "	3,512	3′- 6″x5′- 3″	" " "
" "	359	3′- 4″x7′- 2″	" " "
" "	1,307	3′- 4″x6′- 9″	" " "
" "	8,787	3′- 4″x5′- 0″	" " "
" "	1,056	3′- 2″x4′- 9″	" " "
" "	2,877	3′- 0″x4′- 6″	" " "
" "	953	2′-10″x4′- 3″	" " "
" "	364	2′- 9″x4′- 1½″	" " "
" "	2,516	2′- 8″x4′- 0″	" " "
" "	4,818	2′- 6″x3′- 9″	" " "
" "	498	2′- 6″x3′- 6″	" " "
" "	150	2′- 5″x3′- 7½″	" " "
" "	8,636	2′- 4″x3′- 6″	" " "
" "	8,688	2′- 2″x3′- 3″	" " "
" "	603	2′- 1″x3′- 1½″	" " "
" "	18,874	2′- 0″x3′- 0″	" " "
" "	4,921	1′-10″x2′- 9″	" " "
" "	2,432	1′- 8″x2′- 6″	" " "
" "	917	1′- 6″x2′- 3″	" " "
" "	669	1′- 4″x2′- 0″	" " "
Circular	3,017	7′-0″	" " "
"	3,019	6′-6″	" " "
"	1,330	6′-0″	" " "
"	1,743	5′-9″	" " "
"	3,842	5′-6″	" " "
"	949	5′-3″	" " "
"	2,257	5′-0″	" " "
"	3,274	4′-7½″	" " "
"	1,762	4′-6″	" " "
"	3,362	4′-3″	" " "

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RECAPITULATION BY SIZES.—CONCLUDED.

DESCRIPTION.	Length in Feet.	Size.	Material.
Circular	952	4′-1′	Brick and cem. mortar.
"	2,399	4′-0″	" " "
"	385	3′-9″	" " "
"	677	3′-6″	" " "
"	2,209	3′-3″	" " "
"	2,549	3′-0″	" " "
"	2,072	2′-8″	" " "
"	1,520	2′-0″	" " "
"	190	1′-6″	" " "
Elliptical	416	2′-10″x4′- 3″	Brick-concrete.
"	245	3′- 0″x4′- 6″	" "
Segmental	60	5′- 0″x2′- 1″	Concrete.
Elliptical	385	4′-10″x7′- 3″	"
"	1,085	4′- 2″x6′- 3″	"
"	718	3′- 2″x4′- 9″	"
"	612	2′-10″x4′- 5″	"
"	1,637	2′-10″x4′- 3″	"
"	1,504	2′- 4″x3′- 6″	"
Egg shaped	352	2′- 8″x4′- 0″	"
"	1,365	2′- 6″x3′- 9″	"
"	191	2′- 4″x3′- 6″	"
"	3,081	2′- 2″x3′- 3″	"
"	1,702	2′- 0″x3′- 0″	"
"	349	1′- 8″x2′- 6″	"
Circular	1,004	4′-9″	"
"	684	4′-0″	"
"	1,940	2′-8″	"
"	1,484	2′-3″	"
"	1,139	2′ 2″	"
"	1,440	2′-0″	"
"	29,392	24″	Clay pipe.
"	23,340	20″	" "
"	37,201	18″	" "
"	56,722	15″	" "
"	117,732	12″	" "
"	99,233	10″	" "
"	14,661	8″	" "
"	287	6″	" "
"	20,887	18″	Cement pipe.
"	34,612	15″	" "
"	59,741	12″	" "
"	4,285	10″	" "
"	822	8″	" "
"	120	24″	Cast-iron pipe.
"	28	18″	" "
"	726	24″	Wood pipe.
"	290	18″	" "
Miscellaneous shapes	919		Brick and cem. mortar.
Total	658,828		

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GENERAL CLASSIFICATION, 1911.

	Feet	Miles
Brick and cement mortar	137,406	26.024
Brick-concrete	661	.125
Concrete	20,682	3.917
Clay pipe	378,568	71.698
Cement pipe	120,347	22.793
Cast-iron pipe	148	.028
Wood pipe	1,016	.193
Total	658,828	124.778

SUMMARY OF SEWERAGE STATISTICS.

(In form recommended by Sanitary Section of Boston Society Civil Engineers.)

For the Year Ending December 1, 1911.

SPRINGFIELD, MASSACHUSETTS.

GENERAL.

Population by census of 1910, ... 88,926
Total area of city or town, ... 38 square miles.
Area served by sewerage system, ... 8 square miles.
Collection system, { For sewage only, ... 1.28 miles.
For sewage and surface water, . . 122.97 miles.
For surface water only, ... 0.52 miles.
Method of disposal,—Gravity flow to Connecticut River.

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COLLECTION.

Mains (Everything but House and Catch Basin Connections).

		For sewage only.	For sewage and surface water.	For surface water only.
2.	Lineal feet brick,		137,406	
3.	" " concrete,		21,343	
4.	" " pipe,	6,754	490,567	2,758
5.	" " pipe extended during year,		12,146	
6.	Number of inverted siphons,		1	
8.	Method of flushing: By connections with the water system.			
9.	Method of cleaning: By scrapers and flushing.			
11.	Number of direct connections with water mains for flushing,	5	493	
12.	Number of flushings of entire system during year,		26	
13.	Cost of flushing, per mile,		$18 59	
14.	Cost of cleaning, per mile,		$20 60	
17.	Number of storm overflows,		16	
18.	Method of ventilation: By manholes and well holes and through house stacks,			

HOUSE CONNECTIONS.

1.	By whom made:	By Sewer Department as far as street line.
2.	Sizes,	6" and 8"
3.	Number made during year,	488
4.	Lineal feet laid during year,	About 13,420
7.	Average cost per foot, connections made during year,	$0 40

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FINANCIAL.

CONSTRUCTION.

Receipts.		Expenditures.	
Balance of previous year, $		Collection works :—	
Bonds issued, ...		(*a*) Mains, ...	$33,372 93
Appropriations, ...	35,000 00	(*b*) House connections, .	5,424 93
Entrance fees, ...	13,173 27		
House connections, . .	6,396 09		
By bills rendered, . . .	408 03		

MAINTENANCE AND OPERATION.

Balance of previous year, $		Administration, ...	$3,337 72
		Tools and supplies and materials, ...	1,320 52
Appropriation, ...		Repairs, ...	1,077 11
		Automobile, Teams, City Yard and engineering,	3,022 85
Assessments, ...		Cleaning sewers, ...	2,570 77
Rentals, ...		Cleaning catch basins, .	*1,150 80
Other sources, ...		Flushing sewers, ...	2,320 73
		Work chargeable, . . .	519 77
		Unclassified expenses, .	569 90
		Balance, ...	1,440 16
Total, ...	$54,977 39		$54,977 39
		Amount paid in interest, 1911, ...	$8,400 00

*Paid from Street Department funds.

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GENERAL.

Total cost of collecting mains to date,	$1,528,138 58
Bonded debt at date,	245,500 00
Value of sinking fund at date,	51,737 00
Average rate of interest on bonds,	3½%
Proportion of cost of system paid for by abutters in fees,	25%+

Methods of assessing abutters and rate of assessment:—

Entrance fee of $25 per tenement on ground floor for dwellings.

For business blocks one story in height, one (1) cent per square foot of area covered by building, and for business blocks two or more stories in height one and three-fourths (1¾) cents per square foot of area covered by the building.

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CITY ENGINEER.

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REPORT OF THE

CITY ENGINEER.

CITY OF SPRINGFIELD, MASS., December 28, 1911.

To the City Council:—

In accordance with the provisions of the City Ordinances, the annual report of the Engineering Department for the year 1911 is respectfully submitted, with a statement of receipts and expenditures and a general description of the more important work, also such suggestions as have been considered in order.

FINANCIAL STATEMENT.

RECEIPTS.

Annual appropriation for the year 1911,.....	$10,721 00	
Receipts from other city departments,.....	2,569 21	
		$13,290 21

EXPENDITURES.

Salaries of City Engineer and assistants,.....	$11,494 80	
Office rent and lighting,.....	572 96	
Drawing materials, stationery and general supplies, ...	536 95	
Car fares, automobile service and sundry office expenses, ...	645 25	
		13,249 96
Balance unexpended,.....		$40 25

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DESCRIPTION OF EXPENDITURES FOR SALARIES.

ENGINEERING DEPARTMENT.

For all services performed on account of matters referred to the Board of Public Works by the City Council relating to the laying out or alteration of streets, sidewalks, sewers, and parks; for surveys and levels, plans and profiles, estimates of cost, releases from damages, reports to the City Council, and general correspondence and interviews relating to matters referred to the Board, and all clerical work performed relating to public hearings and all meetings of the Board; measuring and assigning house numbers, work upon house number books and records; furnishing street lines and grades to individuals for buildings, grading, fencing, and sidewalk construction; surveys, estimates, and all general services performed for the various committees of the City Council; general map, plan, and profile drawing of streets, sewers, and public property for office records and for future reference; measuring and recording all sewer connections for house drains, and furnishing lines and grades for same; preparation of plans and photographs for the City Solicitor's use; indexing plans and other office records; photographing and blue printing, examination of deed records, setting of street monuments, and all other services not charged to other city departments, the sum of $8,925.59

HIGHWAY DEPARTMENT.

For all services performed on account of and charged to the street work appropriation; estimates and plans, lines and grades for paving, macadam and gravel, final measurements, inspection of new paving and repairs, and bridge repairs and maintenance, general study and report for new type of flooring for South End bridge, and all other incidental work, the sum of $574.85

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SIDEWALKS AND CURBING.

For all services performed for the general sidewalk and curbing appropriation; lines and grades for laying out and inspection of construction, measurements for assessments, and all work incidental thereto, the sum of $481.23

ASHES COLLECTION.

Grades at West Street Dump, the sum of $9.52

WATERING STREETS.

Measuring streets and private ways, the sum of $5.80

LOCUST STREET LAYOUT.

Construction surveys, designs for retaining wall masonry and culverts; staking out lines and grades, general supervision and direction, and all incidental work, the sum of $516.41

NORTH STREET EXTENSION.

Lines and grades for grading and macadamizing, the sum of $18.14

PECOUSIC AVENUE—RELOCATION AND IMPROVEMENTS.

Grades for resetting curbing at the corner of Gardner street, the sum of $1.38

SEWER DEPARTMENT.

For all services performed on account of the general sewer appropriation; plans, estimates, laying out of work and general supervision of construction details, and all other incidental work, the sum of $495.71

ASSESSORS' DEPARTMENT.

Surveys and plans, computations of areas and dimensions for plans of private property, examination of deed records, and corrections of old plans, the sum of $397.61

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WATER DEPARTMENT.

Street lines for laying new mains (part in 1910) and grades for resetting curbing, the sum of $11.33

FORESTRY DEPARTMENT.

Staking out new buildings on Pecousic avenue, the sum of $2.68

LIGHTING STREETS.

Plan and blue print of electric light poles, the sum of $3.60

FIRE DEPARTMENT.

Survey of Pine street lot, plan of Patton street lot, and setting stone monument on Court street, the sum of $6.44

FIRE AND POLICE HEADQUARTERS.

Plan of Dwight street lot for architect (made in 1910), the sum of $5.06

RIVER FRONT.

Plans showing proposed development from Elm to Cypress street in connection with proposed new railroad station, the sum of $18.15

CHARTER REVISION.

Diagrams illustrating City Government official subdivisions, the sum of $9.00

COMMONWEALTH OF MASSACHUSETTS—DEPARTMENT OF WEIGHTS AND MEASURES.

Measuring courses for taxicab testing, the sum of $8.50

A. E. STEPHENS COMPANY.

Lines for heating plant, the sum of $3.60

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THE WORK OF THE YEAR.

The Engineering Department has responded to the usual requests from the various other city departments, committees and officials in the usual manner, the work performed consisting in the main of the regular routine duties prescribed by city ordinance.

The character of the work has been of the more usual order, with occasional calls for special studies.

SERVICE FOR DEPARTMENTS.

HIGHWAYS AND BRIDGES.

The calls for service for this department have been met in the regular way, and about the usual time expended in the work of new paving, sidewalk, and curb construction, and the alteration and new construction relating to bridges.

PAVING.

The usual policy has been followed concerning the kind of materials used for permanent paving, and no radical departure has been made from the materials heretofore used.

BITULITHIC.

A total of 9,886 square yards of bitulithic paving has been laid under contract with the Warren Brothers Company. All of this work was laid on a five-inch concrete base of Portland cement concrete and under a five-year guaranty.

The former practice of laying this kind of paving on a bituminous base was some time ago discontinued, the advantage of the cement base over the other kind being generally recognized.

The general satisfaction resulting from the bitulithic pavement continues, being recognized as one of the standard paving

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materials for residential and business streets not subject to too heavy traffic.

A considerable amount of repairs to the bitulithic pavement has been made during the year amounting to 8,844 square yards. A considerable part of these repairs was due to cutting into the pavement for the varied work underground, the balance of repairs being due to the ordinary wear and tear of general use; 8,706 square yards repaired were due to openings for underground work, and 138 square yards to ordinary wear and maintenance.

The cost of the latter for an area of 43,531 square yards, the total amount laid to 1911, amounts to $0.003 per sq. yd. per annum.

SHEET ASPHALT.

No new sheet asphalt has been laid for several years; 635 sq. yds. were repaired during the year due to ordinary wear and tear. The cost of the latter represents $0.187 per sq. yd. per annum.

The guaranty period for all sheet asphalt pavement having expired, the cost of repairs is now borne by the city.

CREOSOTED WOOD BLOCKS.

The wood block paving in North Main street and in State street has been extended to cover an area 6,340 square yards.

The regular practice for the last ten years was followed, and long leaf yellow pine blocks treated with a compound of creosote oil and pitch were again used. All work of this kind was laid on a five-inch Portland cement concrete base, and the joints filled with cement grout.

The blocks were purchased of the United States Wood Preserving Company and the work of laying the entire pavement performed by the Street Department with the usual cooperation of the Engineering Department. This form of pavement, regarded by some experts as more or less of a luxury

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in view of attending cost, is still regarded by the public and business interests as the most satisfactory material heretofore used in this city, possessing reasonable durability and general good qualities.

WOOD BLOCK REPAIRS.

The first entire replacement of wood block paving, due to ordinary wear, was made during the year; the blocks in the section of Main street covered by the Boston & Albany Railroad arch, and approaches thereto, laid in 1900, having been replaced for several feet outside the rails of the street car tracks, where the wear was greatest.

These blocks as first laid were grooved at all transverse joints, which resulted in a more rapid rate of wear than would have been the case with ordinary blocks.

The blocks used for relaying were furnished by the United States Wood Preserving Company without cost to the city according to the terms of original guaranty.

A tabulated statement will be found at the end of report showing amount, cost, and other details for all paving work of the year as well as the work done in former years.

SPECIAL STREET WORK.

The new thoroughfare south of Mill River connecting Belmont avenue and Dickinson street in extension of Locust street, and known as the "Locust Street Extension," is now nearly completed.

The preliminary considerations extending over several years terminated in December, 1910, in a favorable recommendation from the Board of Public Works to the City Council, who passed an order for the taking and layout. Early in the present year the necessary moneys were provided and the City Engineer instructed to proceed with the advertisement and letting of the work.

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Contracts were awarded to T. J. Hines & Son for the work of extending the arch bridge over Mill River; the general work of grading, retaining wall construction, culverts, and railings was let to the firm of F. T. Ley & Company,—all work being under the general direction of the City Engineer.

The bridge construction, a concrete-steel structure of the National Bridge Company's patented design, was successfully completed in the early fall season, and the finished structure reflects credit upon the designers, represented locally by Mr. Walter N. Denman, consulting engineer, and the contractors for the work.

The cost of the bridge structure, an arch of twenty feet span with ornamental railing, was $3,789.

The contractors for the grading having a very extended experience in nearly all lines of construction work, and ample facilities for the same, promptly began operations about August first and prosecuted the work with diligence and vigor, employing a steam shovel for excavating, which was of special value in the deep cut consisting in the main of a tenacious red hardpan gravel, requiring the use of explosives to loosen the same.

The completion of this work opens a new thoroughfare of travel leading into the heart of the southeasterly section of the city.

The Springfield Street Railway Company was granted a franchise, for a track location through the new thoroughfare, during the year; a special reservation twenty-one feet wide on the northerly side having been made for the track location. It is expected that the company will carry out the work of track construction early the coming season, extending through Dickinson street to Sumner avenue, passing through a large and rapidly growing section having heretofore no adequate accommodation for street car travel.

The cost of the grading and other work performed by F. T. Ley & Company will amount to about $20,000, when finished.

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ST. JAMES CIRCLE.

St. James circle has been laid out and established, also graded, and a suitable roadway macadamized to meet the pressing demands for a better communication with the city for the important manufacturing enterprises located east of St. James avenue.

NEW STREET LAYOUTS. RELOCATIONS AND WIDENINGS.

Orders have passed the City Council under recommendation of the Board of Public Works for ten new streets accepted as public, aggregating in length 7,550 lineal feet or 1.429 miles.

In addition to the above, five streets have been relocated or widened.

A tabulated statement is annexed to this report showing lengths, widths, and location of streets included in the above.

BIRNIE AVENUE EXTENSION.

The extension of Birnie avenue from Arch to Plainfield street was secured by vote of the City Council passed on recommendation of the Board of Public Works in September of the present year, and the lands to be acquired from individuals and the railroad corporation are being secured by the law department. It would appear that another season should provide for the construction of this connecting link for north and south travel in view of its unusual importance to the traveling public.

The Board of Public Works have labored long to find some feasible scheme for a location over and around the northerly end of Round Hill that would meet the approval of adjoining real estate interests.

When completed this connection will provide another important through thoroughfare connecting Fulton street and Birnie avenue of great benefit to commercial and manufacturing interests.

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The construction involves unusual expense for retaining wall masonry and grading, being located on a steep sidehill, occupying a considerable part of the location of the Boston and Maine Railroad.

SIDEWALK CONSTRUCTION.

There has been about the usual amount of sidewalk construction during the year, the same kind of materials heretofore employed having been used in the work.

The Board of Public Works recognizing the good qualities of Portland cement concrete, as laid in the city for many years, have decided that in view of economy and the public convenience, the cement concrete material should be generally employed for all business streets; the Board consider the material also well adapted to the residential streets.

The sidewalks of bituminous materials have not shown the durability of the Portland cement and their cost during recent years has been nearly as great.

The question frequently arises as to the expediency of placing the duty of constructing sidewalks upon the owners of abutting real estate as has been the custom in our city for many years. It has been found from time to time that much dissatisfaction results from this practice; although the reports of the Board of Public Works contain a general specification of the methods and materials to be employed, frequently they are not fully followed or observed; the result is unsatisfactory to the pedestrian and the burden of cost of maintenance, which also falls wholly on the abutter, is increased. At present there is no supervision or inspection of the sidewalk work performed by abutters; the work is undertaken without knowledge of the city authorities as to time and place.

It is also found that the established grades as laid out by the Engineering Department for sidewalk work are not fully observed in all cases, which results in further dissatisfaction.

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At the expiration of the time allowed abutters by the City Council's order for completion of sidewalk work, the city is authorized to complete the work by days' labor or by contract.

The work done in completion of sidewalks as undertaken by the Street Department, with its trained foremen and workmen, results in a better quality of work and a proper regard for correct lines and grade. The work done under contract is placed under the direction of the City Engineer and his inspectors. Most of the work performed during the year on sidewalks and curbing of cement concrete was so carried out under contract, and with uniformly satisfactory results.

It is believed that with a view to best results the city should carry out all sidewalk and curb work, under its direct management and control, and that there is no more reason for requiring individual property owners to engage in sidewalk and curb construction, than in the work of constructing and repairing roadways.

BRIDGE MAINTENANCE.

The care and maintenance of the bridges over the Connecticut River, owing to their considerable length, about one quarter of a mile each, involve at intervals considerable time and consideration. The South End bridge floor system was examined early in the summer season and it was found that the Kyanized spruce under-flooring, floor joists, and underfloor, as laid in 1893, were so unsound that immediate steps should be taken looking to removal of the entire flooring. The wearing surface of two-inch untreated spruce was also so worn that its removal was necessary.

The City Engineer was requested to examine into the general question of the best method and material to be used, as well as the cost of replacement.

An extended inquiry and study were made concerning the many methods now in use for the treatment for preservation of timber, which resulted in a general recommendation for the

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employment of creosoted short leaf yellow pine for all timber; the under-flooring as finally used consisted of 2¾ inch yellow pine laid on floor joists of same material.

The wearing surface consists of creosoted short leaf yellow pine paving blocks, 2¾ inches in depth. The blocks were laid directly on the under-flooring, which was laid close, and the joints filled with a bituminous joint filler, and a thin coating of trap rock screenings spread on top while the bitumen was warm so as to unite with it.

The flooring as relaid presents a uniform surface convenient for passing vehicles, and it is believed that the best results have been secured for economy and satisfactory use, although the cost was considerable more than would have resulted from the use of ordinary flooring of untreated timber.

It is believed that the creosoting process will serve to preserve the timber for twenty-five or thirty years without appreciable decay, and the wearing surface, when badly worn, can be renewed without removal of the under-flooring.

The North End bridge over Connecticut River has become so rough that the two-inch wearing surface of ordinary spruce is to be renewed. A contract has been made with the Blodgett Lumber Company for the lumber, which is looked for at an early day.

ABBE AVENUE CROSSING BRIDGE.

The steel structure over the Boston and Maine Railroad at Abbe avenue is in need of painting and the thorough cleaning of all steel work and painting should be provided for the coming year.

SEWER WORK.

The season's sewer work has covered about the usual amount of vitrified pipe and cement concrete sewers, with a rather larger proportion of pipe sewers than usual.

In all 20,623 lineal feet of sewers have been laid, 19,241

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lineal feet of which were vitrified pipe, and the balance of 1,382 lineal feet, Portland cement concrete. A tabular statement of details is attached to this report.

As in former years the practice has been continued of using cement concrete for all sewers larger than a twenty-four inch circle.

The all-around good results obtained by the use of Portland cement concrete in former years as well as a very considerable saving of cost has led to further use.

All work of the year has been performed by the Sewer Department by days' labor, with the co-operation of the Engineering Department.

CEMENT PIPE SEWERS.

At the beginning of the year 1911, there were 24 miles of cement pipe sewers in use, laid prior to 1890, at which time the laying of cement pipe was discontinued.

For many years the cement pipe sewers have been disintegrating to such extent that the only practicable way out of the difficulty has been to replace them with vitrified clay pipe. During the year 8,101 lineal feet of cement pipe sewers, representing a first cost of about $9,500, have been abandoned and replaced with vitrified clay.

BOARD OF PUBLIC WORKS.

The requests of the Board of Public Works acting in their advisory capacity upon the various petitions referred to them by the City Council, pertaining to streets, sidewalks, sewers, and parkways, have been met in the usual way, where studies, plans, surveys, and estimates were necessary.

The City Engineer, acting as clerk for the Board, has attended all hearings and office meetings of the Board, amounting in all to 89 in number.

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WATER STREET WIDENING.

One of the more important matters coming under the consideration of the Board was the widening of Water street on the westerly side from Gardner street to Whitney avenue, the measure being now before the City Council body for final action, the street to be widened from 49½ to 80 feet. If carried out the widening will form a continuation northerly of Pecousic avenue layout, which is 100 feet wide.

SEWER STUDIES.

The matter of extending the Mill River valley intercepting sewer northeasterly through the valley of Carlisle Brook to the vicinity of the Wilbraham road, is now under consideration and study. Some buildings have been erected in the vicinity of Marlborough street, that cannot be satisfactorily reached by the lateral sewers connecting with the trunk line in the Wilbraham road westerly from Carlisle Brook valley.

The extension of the Mill River valley intercepting sewer will meet the necessities of this locality.

The extension of the intercepting sewer through Hickory street around the northerly shore of Watershop pond to the vicinity of Wilbraham road is also under consideration by the Board to which a petition for this sewer has been referred.

EAST SPRINGFIELD SEWER SYSTEM.

A petition was referred to the Board in the summer of 1910 for a sewer in Highland terrace in East Springfield, so-called. After a hearing and view of the ground it was found that there was no sewer in the locality that could be used as an outlet. Further investigation and study showed that the only available trunk sewer of the present system of city sewers was the Garden Brook sewer ending at Armory street near the Boston and Albany Railroad crossing. The general study showed

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that an extension of the Garden Brook sewer through Albany street to the foot of the bluff, thence across the Boston and Albany Railroad to and through Chicopee road, and through Jennett avenue and private property to Highland terrace, would be required to meet the desires of the petitioners. This extension would necessitate the construction of 9,300 lineal feet of sewer or 1¾ miles, which would reach to Highland terrace, but would not provide a sewer through the same.

The Board found that no buildings had been erected in the locality, and as the estimated cost of the sewer to reach Highland terrace was about $65,000 the Board did not deem it expedient that the sewer should be recommended; they therefore reported to the City Council that the petitioners should have leave to withdraw. Subsequently another petition was presented for the drainage of the section lying easterly of Highland terrace extending easterly to Poor Brook; this involved the consideration of another system whose natural outlet was northeasterly through the Poor Brook valley to Chicopee River in the opposite direction from the city.

The Board was asked by the Finance Committee, to whom the matter was referred, to inform the committee of the feasibility of draining into Chicopee River, as proposed by the proprietors of the land in the locality.

The Board counseled with the State Board of Health, which advised adversely as to the use of Chicopee River as an outlet.

The report of the State Board was referred by the Board of Public Works to the City Council, with a supplementary report repeating in general their first recommendation.

DWIGHT AND CHESTNUT STREETS.

The extension and widening of Dwight and Chestnut streets is now under consideration by the Board, which have found that these two projects involve unusual study and time, for the determination of a rational finding.

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The routes are being carefully considered and a great amount of detail must be studied in order that the public convenience may be best served, in the final decision upon these matters.

ASSESSORS' PLANS.

There has been less than the usual amount expended during the year for plans for the use of the Assessors of Taxes. All plans have been made to conform to former work, and several sheets of the usual size have been prepared.

Tracings of all plans have been made for use in the City Engineer's office.

The total expenditure amounts to $397.61. Thirty-five new plans have been made of uniform size of 20 by 26 inches, on mounted white drawing paper.

The plans for the business and residential sections of the city having been made in former years, there remains but the suburban and farming districts.

The work should be continued from year to year as rapidly as appropriations will permit until the entire city has been covered.

Considerable work is required each year to correct plans previously made, to show changes in ownership, and different subdivisions of property.

As the number of plans increase, this work of correcting plans previously made each year will be considerably increased.

TABULAR INFORMATION.

The usual tabular statements of details pertaining to the several classifications of work with which the department has been associated will appear with this report when printed.

DEPARTMENT EMPLOYEES.

The usual force of assistants has been employed during

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the year, with some extra service during a portion of the summer. Assistant Engineer Mr. Herbert E. Flint, as in former years, has directed the detail of the work and the office force. Assistants Mr. Edward G. Martin, Mr. Charles A. L. Wright, Mr. Ernest F. Young, Mr. Charles J. Hancock, Mr. Edward W. Burnett, Mr. Rowland W. Greenwood, and Mr. Irving P. Salisbury have made up the regular office force. There have also been employed during a portion of the year, Mr. Robert A. Palmer, Mr. Charles D. Todd, Mr. Ernest T. Reilly, and Mr. George W. Schwenger.

Miss Alice M. Hancock has performed the usual duties of stenographer, typewriter, and general office clerk.

In closing I desire to thank the assistants for their co-operation in the work and the various city officials for the pleasant relations sustained and the courtesies extended.

Respectfully submitted,

CHAS. M. SLOCUM,

City Engineer.

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BOARD OF ALDERMEN, Dec. 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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WORK ITEMIZED.

BRIDGES.

REPAIRS AND CARE.

	Description of Work.	Cost.
Abbe avenue overhead crossing,	General and railing repairs,	$54 63
Armory street over B. & A. Railroad,	Floor repairs,	153 36
Armory street over N. Y., N. H., & H. Railroad,	Floor repairs,	117 39
Berkshire street, Red House crossing,	Floor repairs,	97 43
Main street, I. O.,	Floor repairs,	53 23
North end, over Conn. River,	Floor repairs and cleaning,	885 84
Old Toll,	Floor repairs and care,	472 16
Plainfield street,	Floor repairs,	257 54
South end, over Conn. River, and N. Y., N. H., & H. Railroad,	Floor repairs,	378 73
St. James avenue,	Floor repairs,	345 09
Sundry,	Small repairs,	23 23
		$2,838 63

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STREET CONSTRUCTION.

Grading and Graveling.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Kensington avenue,	Oakland street easterly,	1,200	4,000	$0 04	$154 82
Pecousic avenue,	just north of Mill River (grading),				338 06
Sumner avenue,	just east of railroad (grading),				231 57
Wellington street,	Wilbraham road southerly,	690	2,300	06	145 87
Wilmont street,	Ranney street westerly,	200	737	11	83 38
		2,090	7,037		$953 70

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STREET CONSTRUCTION.

MACADAM.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Alfred street,		490	1,635	$0 47	$767 09
Berkeley street,		453	1,510	537	810 83
Bowdoin street,	Worthington street to Ingersoll grove,	792	2,640	536	1,414 46
Buckingham place,		275	916	585	535 76
Buckingham street,		2,006	6,678	53	3,543 16
Cherryvale avenue,		687	2,290	607	1,390 72
Chestnut street,	west side Jefferson avenue to Springfield street,	1,665	3,250	784	2,547 17
Cumberland street,	grading for macadam,				161 05
Florentine gardens,		706	3,501	547	1,914 27
Florida street,	Worthington street to Ingersoll grove,	785	2,202	518	1,140 67
Ingersoll grove,	Worthington street to Bowdoin street,	1,395	4,650	50	2,320 98
Magnolia terrace,	Spruceland street to Pineywoods avenue,	556	3,089	50	1,546 39
Marengo park,		1,869	6,230	498	3,105 37
Monmouth street,		1,168	4,000	498	1,991 16
Montmorenci street,		620	2,067	448	926 66
Mulberry street,	School to Union street,	1,322	3,223	506	1,630 17
North street,	Carew to Liberty, completion of work of 1910,				558 21

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STREET CONSTRUCTION.

MACADAM—CONTINUED.

Street	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Pineywoods avenue,	Washington road to Florentine gardens,	1,273	4,243	$0 507	$2,149 48
Riverview street,		625	2,094	62	1,300 61
Riverview terrace,		281	721	64	461 81
St. James circle,	St. James avenue to Jennette avenue,	1,131	1,509	633	954 80
Union street,	School to Mulberry,	938	3,128	37	1,155 67
Washington road,	Sumner avenue to Pineywoods avenue,	800	2,667	47	1,256 46
Westernview street,		650	2,167	547	1,185 45
Westford avenue,	Wilbraham road to north curb line Gunn square,	1,380	6,133	44	2,696 24
		21,867	70,543		$37,464 64

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STREET MAINTENANCE.

MACADAM RESURFACING.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Boylston street,	Emery to Clinton,	303	748	$0 56	$418 88
North Main street,	Wason avenue to Chicopee line (rebuilt),	1,026	3,938	69	2,721 24
State street,	northerly side, City Library, easterly to Federal street,	2,740	7,834	347	2,722 33
Walnut street,	westerly side, Hancock street southerly,	300	400	37	147 84
West street,		1,195	3,872	588	2,268 09
Worthington street,	Spring to Kibbe avenue (completion 1910 work),				1,465 69
		5,564	16,792		$9,744 07

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STREET MAINTENANCE.

GRAVEL RESURFACING.

Street.	Limits.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Berkshire avenue,	State street to Red House crossing, northerly side,	7,600	10,248	$0 155	$1,589 28
		7,600	10,248	$0 155	$1,589 28

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STREET CONSTRUCTION.

PAVING.

Street.	Limits.	Material.	Length in feet.	Area in sq. yds.	Cost per sq. yd.	Total Cost.
Bridge street,	Completion of work of 1910, Dwight to Chestnut,					$1,968 41
Bridge street,	Extension westerly to Water street,	Bitulithic,	252	895	$2 563	2,294 37
*Court street,	Court Square avenue to Water street,	Bitulithic,	617	2,699	2 69	7,274 57
Liberty street,	Main street easterly,	Bitulithic,	311	1,335	2 64	3,525 91
North Main street,	Bancroft to Calhoun, completion of work of 1910,					8,529 55
North Main street,	Calhoun to Grove,	Wood blocks,	673	3,466	2 90	10,057 22
Pynchon street,	Main to Water,	Bitulithic,	870	2,866	2 54	7,276 53
State street,	Pleasant to Terrence, completion of work of 1910,					291 82
State street,	Terrence to Westminster,	Wood blocks,	639	3,256	3 30	10,754 41
Vernon street,	Main to Water,	Bitulithic,	821	2,047	2 58	5,278 28
Walnut street,	at Ashley street,	Bitulithic,		44	3 00	131 86
			4,183	16,608		$57,382 93

*This work was allowed a special appropriation of $7,000.49.

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STREET MAINTENANCE.

PAVING RESURFACING.

BITULITHIC SKIM COATING.

Street.	Area in sq. yds.	Cost.
Maple street,	1,710.69	$1,283 02
Market street,	801.93	601 45
North Chestnut street,	813.30	609 98
North Main street,	1,066.64	799 98
State street,	594.10	445 57
Taylor street,	202.03	151 52
Walnut street,	1,526.02	1,144 51
Worthington street,	119.94	89 96
	6,834.65	$5,125 99

ASPHALT REPAIRS.

Street.		Area in sq. yds.	Cost.
Bridge street,	Rock asphalt,	459.90	$1,057 77
Court street,	Rock asphalt,	39.31	90 42
Elm street,	Rock asphalt,	43.71	100 53
Harrison avenue,	Trinidad asphalt,	88.20	202 86
Sanford street,	Rock asphalt,	3.94	9 06
		635.06	$1,460 64

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SIDEWALKS AND CURBING.

CONSTRUCTION AND RECONSTRUCTION.

By orders of the City Council.

Street.	Length in feet.	SIDEWALKS.		CURBING. Length in feet.		Order Approved.
		Material.	Description.	4″	6″	
Abbe avenue,	820	Brick,	New,			Sept. 20, 1910.
Andrew street,	291	Tar concrete,	Skim coat,			Sept. 20, 1910.
Benton street,	1,000	Brick,	New,	2,061		July 13, 1911.
Boylston street,	585	Brick,	Relaid concrete curb,		551	June 29, 1910.
Carew street,	470	Cement concrete,	New,			Nov. 15, 1910.
Cass street,	50	Brick,	New,			June 6, 1911.
Chestnut street,	115	Brick,	Relaid,			Nov. 28, 1910.
Dickinson street,				1,629		Sept. 20, 1910.
Foster street,	405	Brick,	New,	33		May 25, 1910.
Franklin street,	602	Brick,	New,			Sept. 27, 1910.
Hamburg street,	148	Tar concrete,	New,			June 29, 1910.
Hancock street,	225	Brick,	New,	752		July 12, 1910.
Hancock street,	138	Brick,	Relaid,			July 12, 1910.
Kensington avenue,			Concrete curb,	1,986		July 12, 1910.
Lester street,	250	Cement concrete,	New,			July 13, 1911.

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SIDEWALKS AND CURBING—Continued.

Street.	Length in feet.	SIDEWALKS. Material.	SIDEWALKS. Description.	CURBING. Length in feet. 4″	CURBING. Length in feet. 6″	Order Approved.
Liberty street,	2,797	Brick,	Relaid,			June 1, 1910.
North street extension,			Granite,		419	Sept. 2, 1910.
			Concrete curb,		2,014	
North street extension,	1,929	Cement concrete,	New,			July 13, 1911.
North Main street,	941	Cement concrete,	New,		881	Sept. 20, 1910.
Orchard street,	2,031	Brick,	New,	2,083		Oct. 13, 1910.
State street,	54	Tar concrete,	Skim coat,			June 6, 1911.
Sumner avenue,	383	Cement concrete,	New,			July 13, 1911.
Wilmont street,	824	Tar concrete,	Skim coat,			Aug. 8, 1911.
	675		New,			
	14,733			8,544	3,865	

No sidewalk construction was ordered by abutters during the past fiscal year but 1,764 feet of four-inch curbing have been set by orders of abutters.

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MACADAM REPLACED BY PAVING.

STREET.	Limits.	Length in feet.	Area in sq. yds.
Bridge street,	Water street easterly,	250	1,138
Court street,	Court Square avenue to Water street,	594	1,980
Liberty street,	Main street easterly,	311	1,335
Pynchon street,		868	2,810
Vernon street,		828	1,952
North Main street,	Calhoun to Grove street,	673	3,466
State street,	Terrence to Westminster street,	639	3,256
		4,158	15,937

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TABLE OF PAVED STREETS.

Name	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Barnes street,		Bitulithic,	178	552	1909
Belmont avenue,	Hall street westerly,	Catskill blocks,	1,362	1,211	1901
Belmont avenue,	Hall street to Oakland,	Metropolitan blocks,	1,023	914	1908
Birnie avenue,	Hooker street northerly,	Johnsonburg blocks,	145	483	1906
Bridge street,	Main to Dwight,	Rock asphalt,	688	2,525	1900
Bridge street,	Dwight to Chestnut,	Creo-resinate wood bl'ks, 3″ x 3½″ x 8″,	122	446	1910
		Asphalt blocks, 5″ x 12 ″ x 3″,	195	712	1910
Bridge street,	Main street, 493 feet westerly,	Bitulithic,	493	1,746	1905
Bridge street,	extension to Water street,	Bitulithic,	252	895	1911
Bridge street,	Water street to Old Toll bridge,	Granite blocks,	249	713	1907
Catharine street,	State to Bay,	Syracuse brick,	1,722	5,691	1900
Charles street,	Liberty to land of B. & A. R. R.,	Granite blocks,	150	876	1903
Chestnut street,	Worthington to Lyman,	Granite blocks,	472	1,673	1895
Chestnut street,	Lyman to B. & A. R. R.,	Granite blocks,	256	1,471	1889
Chestnut street,	B. & A. R. R. to Linden,	Granite blocks,	1,640	5,285	1892
Chestnut street,	Linden to Everett,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	419	1,488	1909
Chestnut street,	Everett to Carew,	Granite blocks,	354	718	1893
Chestnut street,	Carew to Allendale,	Syracuse brick,	1,015	3,482	1900

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Chestnut street,	Allendale to Jefferson avenue,	Bitulithic,	825	2,898	1905
Court street,	Main to Court Square avenue,	Rock asphalt,	317	1,149	1897
		Syracuse brick,	——	174	1897
		Syracuse brick,	——	128	1907
Court street,	Court Square avenue to Water st.,	Bitulithic,	617	2,699	1911
Court Square avenue,	Court to Elm,	Rock asphalt,	193	503	1897
		Syracuse brick,	——	330	1897
Cypress street,	Main street westerly,	Granite blocks,	459	1,700	1904
Cypress street,	Boylston to Fulton,	Granite blocks,	216	848	1905
Dwight street,	State to Lyman,	Syracuse brick,	2,324	9,905	1896
East Court street,	Main to Market,	Rock asphalt,	117	297	1900
Elm street,	Main to Court Square avenue,	Rock asphalt,	343	949	1897
		Syracuse brick,	——	330	1897
Ferry street,	Main street to foot of hill,	Bitulithic,	1,389	3,597	1910
Fort street,	Main to Water,	Granite blocks,	670	1,770	1895
Fulton street,	Cypress to Vine,	Granite blocks,	1,125	3,006	1906
Hampden street,	Main street westerly,	Bitulithic,	212	821	1904
Hampden street,	completion, Main to Water,	Bitulithic,	394	1,539	1905
Harrison avenue,	Main to Dwight,	Trinidad asphalt,	586	2,247	1896
Hillman street,	Main to Dwight,	Bitulithic,	648	2,025	1906

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
King street,	St. Ry. turnout,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	317	1,023	1908
Liberty street,	Main street, easterly,	Bitulithic,	311	1,385	1911
Liberty street,	Chestnut to Cass,	Syracuse brick,	1,399	4,571	1900
Liberty street,	Cass to Heywood avenue,	Syracuse brick,	1,147	3,971	1901
Lyman street,	Main to Chestnut,	Granite blocks,	1,305	4,599	1889
Lyman street,	Chestnut street, easterly,	Granite blocks,	503	2,095	1908
Lyman street,	extension easterly to Spring st.,	Granite blocks,	228	949	1909
Main street,	Locust to Marble,	Syracuse brick,	340	4,381	1897
Main street,	Marble to William,	Syracuse brick,	1,762	8,307	1896
Main street,	William to Bliss,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	1,150	6,460	1906
Main street,	Bliss to State,	Syracuse brick,	241	1,355	1893
Main street,	State to Worthington,	Creo-resinate wood bl'ks, 3″ x 3½″ x 8″,	1,899	10,798	1904
Main street,	Worthington to Hampden, west side,	Creo-resinate wood bl'ks, 3″ x 3½″ x 8″,	382	1,183	1904
Main street,	Worthington to Hampden, east side,	Creo-resinate wood bl'ks, 4″ x 4″ x 8″,	——	962	1903
Main street,	Hampden to Lyman,	Creo-resinate wood bl'ks, 4″ x 4″ x 8″,	153	775	1903

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Main street,	Lyman to Liberty,	Creo-resinate grooved wood bl'ks, 4″ x 4″ x 8″,	484	2,780	1908
Main street,	Liberty to Sharon, east side,	Creo-resinate wood bl'ks, 4″ x 4″ x 8″,	458	1,185	1908
Main street,	Liberty to Sharon, west side,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	——	1,487	1907
Main street,	Sharon to near Franklin and Emery,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	509	3,108	1907
Main street,	near Franklin, east side,	Syracuse brick,	36	144	1907
Main street,	Franklin to Carew, east side,	Syracuse brick,	1,302	4,605	1897
Main street,	Emery to Sargeant, west side,	Catskill blocks,	1,447	5,449	1901
Main street,	crossing opposite Auburn street,	Catskill and Metropolitan blocks,	——	163	1903
Maple street,	Central to High,	Bitulithic,	1,563	5,665	1904
Maple street,	High to State,	Bitulithic,	598	2,530	1905
Market street,	State to Harrison avenue,	Bitulithic,	968	1,887	1906
North Main street,	Plainfield to Morgan,	Bitulithic,	730	4,485	1906
North Main street,	Morgan to Bancroft,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	879	4,544	1909
North Main street,	Bancroft to Calhoun,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	889	4,210	1910

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
North Main street,	Calhoun to Grove,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	673	3,466	1911
North Main street,	at Wason avenue,	Syracuse brick,	——	196	1908
Plainfield street,	Sargeant to Fulton,	Syracuse brick,	1,710	10,249	1902
Pynchon street,	Main to Water,	Bitulithic,	870	2,866	1911
Railroad street,	Main to Water,	Granite blocks,	516	1,539	1906
Sanford street,	Main to Market,	Rock asphalt,	102	207	1900
State street,	Main street, westerly,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	598	2,357	1909
State street,	Main to Dwight,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	478	2,408	1908
State street,	Dwight to City Library,	Granite blocks,	541	1,631	1890
State street,	Dwight to Chestnut (widened),	Granite blocks,	——	217	1896
State street,	Federal to Oak,	Syracuse brick,	847	4,590	1897
State street,	Oak to Stebbins,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	762	3,031	1909
State street,	Pleasant to Terrence,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	386	1,497	1910
State street,	Terrence to Westminster,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	689	3,256	1911
State street,	at Walnut,	Syracuse brick,	——	278	1908

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
State street,	at St. James avenue,	Syracuse brick,	——	183	1907
State street,	Sherman to Highland Div., N. Y., N. H. & H. R. R.,	Bitulithic,	820	4,352	1905
Summer street,	Spring to near Autumn,	Granite blocks,	567	1,512	1907
Summer street,	Autumn to Kibbe avenue,	Granite blocks,	1,259	4,029	1895
Summer street,	Kibbe avenue to point 85′ west of Federal,	Granite blocks,	787	2,635	1901
Taylor street,	Main to Dwight,	Bitulithic,	770	2,580	1904
Townsley avenue,		Bitulithic,	142	214	1908
Vernon street,		Bitulithic,	821	2,047	1911
Walnut street,	State to Union,	Syracuse brick,	638	2,144	1899
Walnut street,	Union to Pendleton avenue,	Syracuse brick,	873	3,140	1900
Walnut street,	Pendleton ave. to Lebanon st.,	Bitulithic,	1,195	3,888	1905
Walnut street,	Lebanon to Hancock,	Bitulithic,	1,005	3,334	1906
Walnut street,	at Ashley,	Bitulithic,	——	44	1911
White street,	Allen to Orange,	Syracuse brick,	1,610	2,400	1902
Worthington street,	Main to Dwight,	Syracuse brick,	739	2,544	1896
Worthington street,	Dwight to Fairbanks place,	Syracuse brick,	1,060	3,869	1901
Worthington street,	Fairbanks place to east line of Spring,	Syracuse brick,	269	1,008	1903
Worthington street,	Main to Broadway,	Bitulithic,	404	1,418	1905

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TABLE OF PAVED STREETS.

Name.	Limits.	Material.	Length in feet.	Area in sq. yds.	Year Laid.
Worthington street,	Broadway to Water street,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	299	1,061	1909
Worthington street,	at Sackett place,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	265	886	1908
Worthington street,	Federal to Armory,	Creo-resinate wood bl'ks, 3″ x 3½″ x 6″ to 10″,	374	1,312	1908
Total,			64,629	244,475	

RECAPITULATION.

Material.	Length in feet.	Length in miles.	Area in sq. yds.	Material.	Length in feet.	Length in miles.	Area in sq. yds.
Bitulithic,	15,200	2.879	58,417	Metropolitan blocks,	1,023	.194	996
Catskill blocks,	2,809	.532	6,741	Rock asphalt,	1,760	.333	5,630
Creo-resinate wood blocks,	12,080	2.287	59,613	Syracuse brick,	19,584	3.7	77,920
Granite blocks,	11,297	2.140	36,716	Trinidad asphalt,	586	.111	2,247
Johnsonburg blocks,	145	.027	488	Asphalt blocks,	195	.037	712
				Total,	64,629	12.24	244,475

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STREETS MADE PUBLIC.

BY ORDER OF THE CITY COUNCIL.

Name.	Limits.	Length in feet.	Width in feet.
Belmont place,	Belmont avenue southerly,	215	47
Berendo street,	Grenada terrace to Alderman street,	370	60
Birnie avenue extension,	Arch street to Plainfield street,	839	36
Genesee street,	Franklin street northerly,	219	48
Ledyard street,	Armory street to Liberty street,	565	50
Locust street extension,	Belmont avenue to Dickinson street,	2,415	58
Mill street extension,	Main street to Pecousic avenue,	588	60
Orleans court,	Oak street to Orleans street,	338	16-20-13
Sorrento street,	Sumner avenue to Alderman street,	870	60
St. James circle,	St. James avenue to Jennette avenue,	1,131	50
	1.429 miles.	7,550	

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STREETS RELOCATED AND WIDENED.

BY ORDER OF THE CITY COUNCIL.

Name.	Limits.	Length in feet.	Width in feet.
Fulton street,	Plainfield street southerly,	227	40.5
Longhill street,	Edgeland avenue southerly,	364	66-74
Longhill street,	Cherryvale avenue southerly,	628	74
Main street and Longhill street,	both corners,	191	
Pecousic avenue and Main street,	both corners,	184	
		1,594	

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CONCRETE SEWERS—1911.

STREET.	LIMITS.	Size and Shape.	Length in Feet.	Total Cost.	Total Cost per Lineal Foot.	No. of Manholes.	Total Cost of Manholes.	Width of Trench.	Average Depth of Cutting.	Material Excavated.
[1] ‡Central st.....	Morris to Maple st	2'-3" circular	463	$2,332.17	$5.04	3	$119.69	4.0	12.0	Fine blue sand, clay, and loam
[2] ‡Franklin st.....	Garden Brook, easterly to Chestnut st.....	2'-2"x3'-3" egg shape	919	4,106.84	4.47	——	——	5.3	10.0	Muck, fine blue sand
Total			1382	$6,439.01			$119.69			

‡Relaid. [1] 135' of 4" underdrain. [2] 240' of 8" underdrain.

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§SEWER CONSTRUCTION—1911.

STREET.	LIMITS.	VITRIFIED CLAY PIPE. Size in Inches. 24″	20″	18″	15″	12″	10″	8″	Total Length.	Total Cost of Sewer.	Total Cost per lineal ft.	Average Depth of Cutting.	Width of Trench.	Material Excavated.
Applewood place..	Belmont ave., northerly						469		469	$391.81	$0.84	8.8	3.5	Sand
*Blake Hill	Fort Pleasant ave., easterly						211		211	217.88	1.03	5.6	3.5	Clay and hardpan
Brightwood ave...	Plainfield st., westerly				171				171	178.00	1.04	11.6	3.5	Clay, gravel, and sand
Bristol st	Marlborough st., southerly, extension						552		552	293.99	.53	4.8	3.0	Gravel, hardpan, and sand
Brooklyn ave	Sumner ave., southerly					423			423	329.56	.77	9.0	3.5	Sand
Brunswick st	Brooklyn ave., southerly						307		307	190.48	.62	7.5	3.5	Sand
Center st	Oak Grove ave., northerly, extension						860		860	328.35	.38	3.9	2.5	Ashes, rubbish, and sand
[1] ‡Central st	Main to Maple st	460	434						894	2,665.22	2.98	12.0	4.0	Fine blue sand, clay, and loam
[2] †Chestnut st	Worthington to Bridge st	353							353	1,148.06	3.25	10.0	4.0	Clay, hardpan
Claremont st	Orange st., southerly						492		492	264.58	.54	3.6	3.0	Sand
Clermont st., I. O.	Healey ave., easterly						150		150	123.28	.82	6.0	3.5	Sand
‡Clifton ave	Central st., westerly							111	111	54.58	.49	8.8	3.5	Sand
[3] Cumberland st..	Extension easterly to North st					238			238	284.06	1.19	9.0	3.5	Clayey loam, fine blue sand
‡Florida st	Worthington st., northerly to Ingersoll Grove				555	279			834	978.89	1.17	10.0	3.5	Sand and gravel
[4] Foster st	Knox st., easterly					511			511	517.25	1.12	7.5	3.5	Sand
[5] ‡Franklin st	Garden Brook, easterly to Chestnut st.		295						295	652.82	2.21	10.0	5.3	Muck, fine blue sand
Greenacre sq., north	Foster st., easterly						201		201	149.62	.74	6.5	3.5	Sand
[6] Greenacre sq., south	Foster st., easterly						246		246	163.73	.67	6.5	3.5	Sand
Hampshire st., I. O.	Pine st., westerly						394		394	391.15	1.21	6.8	3.5	Sand and gravel
Healey ave., I. O..	Worcester st., southerly				326				326	270.40	.83	5.0	4.0	Sand and filling
Hiawatha st	White st., westerly						383		383	268 30	.70	7.8	3.5	Sand
Hollywood st	Dickinson st., easterly						174		174	121.04	.69	7.1	3.5	Sand
Homer st	State st., southerly, extension						94		94	99.81	1.06	7.0	3.5	Sand
Ingersoll Grove	Florida st., easterly						146		146	71.14	.49	6.8	3.5	Sand
Johnson st., I. O..	Main to South st		500	463					963	1,254.26	1.30	6.5	4.0	Sand and hardpan
*‡King st	Eastern ave. to Logan st					238	239		477	701.29	1.47	8.7	3.5	Sand and loam
‡Knox st	Windsor st., southerly				34				34	47.88	1.41	7.5	3.5	Clay and sand
[7] Laurel ave	Extension towards Conn. river			20					20	44.62	2.23	—	3.0	Marl
[8] ‡Lyman st	Extension easterly, from near Chestnut				202				202	874.52	4.33	14.0	4.0	Clayey loam
‡Main st	Locust to Mill st				385	394			779	1,809.52	2.45	8.0	4.0	Gravel, hardpan, and rock
Main st., I. O.	Bay st., westerly, extension					149			149	193.97	1.30	5.8	3.5	Gravel
[9] Mill st	Dickinson st., easterly to Noel st.	325							325	619.85	1.91	7.8	4.0	Hard gravel, sand

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SEWER CONSTRUCTION—1911.—CONTINUED.

STREET.	LIMITS.	VITRIFIED CLAY PIPE. Size in Inches. 24"	20"	18"	15"	12"	10"	8"	Total Length.	Total Cost of Sewer.	Total Cost per lineal ft.	Average Depth of Cutting.	Width of Trench.	Material Excavated.
‡Mulberry st.	Maple to School st.				426	270			696	$873.04	$1.25	8.4	4.0	Clay and sand
[10] Noel st.	Mill st., southerly		204	146					350	569.64	1.63	8.1	3.5	Sand, gravel, clay, and hardpan
North st.	Ferry st., northerly						148		148	223 34	.51	7.9	3.5	Loam, marl, and filling
North Main st.	Osgood st., southerly						199		199	641.23	3.22	9.0	3.5	Sand and marl, 6 ft. clay bottom
[11] North Main st.	Eagle st., northerly, extension	39							39	88.55	2.27	8.0	4.0	Sand
North Main st.	Wason ave., northerly, extension					252			252	181.36	.72	5.0	3.0	Sandy loam
‡Oak st.	Walnut to Tyler st			177					177	297.10	1.68	10.0	3.5	Sand
Oak Grove ave.	Bay st., southerly, extension						50		50	42.81	.86	6.0	3.0	Sand and gravel
Oak Grove ave.	Center st., northerly						492		492	196.85	.40	3.6	3.0	Sand and gravel
Orange st.	Extension easterly near Allen st.						225		225	103.88	.46	3.3	3.5	Sand
Orlando st.	Belmont ave., northerly					246	193		439	396.28	.90	8.5	3.5	Sand
**[12] Plainfield st.	Sanderson terrace, southerly, extension	148							148	535.51	3.62	14.0	5.0	Fine sand
Prescott st.	Belmont ave., northerly						340		340	195.22	.57	8.5	3.5	Sand
Prospect st.	Massasoit st., easterly, extension					325	423		748	726.53	.97	9.2	4.0	Sand, gravel, and clay
Spencer ave.	Sumner ave., southerly					282	315		597	451.29	.76	9.0	3.5	Sand, hardpan bottom
Sumner ave.	Castle ave., easterly, extension					629			629	606.96	.97	11.3	3.5	Sand
[13] †Taylor st.	Main to Dwight st		330	321	197				848	2,099.63	2.48	10.1	4.0	Clay and loam
Thorndike st.	Sumner ave., southerly					116			116	148.23	1.28	11.0	3.5	Sand, hardpan bottom
‡Wellesley st.	St. James ave. to Cornell st					236	224		460	540.30	1.17	10.0	3.5	Sand and gravel
[14] ‡Windsor st.	Knox st., westerly					308	266		574	560.76	.98	8.5	3.5	Sand
Total		1325	1763	1127	2296	4896	7723	111	19,241	$25,179.11				

*Completed.
**Incomplete.
‡Relaid.
†Stormwater.

§Does not include cost of connections to buildings or street inlets.
[1] 135′ of 4″ underdrain.
[2] 300′ of 4″ underdrain.
[3] 148′ of 4″ underdrain.
[4] 347′ of 3″ underdrain.
[5] 240′ of 8″ underdrain.
[6] 50′ of 3″ underdrain.
[7] 12′ of 4″ underdrain.
[8] 123′ of 4″ underdrain.
[9] 223′ of 4″ underdrain.
[10] 146′ of 4″ underdrain.
[11] 18′ of 4″ underdrain.
[12] 148′ of 4″ underdrain.
[13] 330′ of 6″ underdrain.
[14] 270′ of 3″ underdrain.

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*COST OF SEWER SYSTEM TO DECEMBER 1, 1911.

YEARS.	CONSTRUCTION.	MAINTENANCE.	TOTAL.
1863-1880 inclusive	$357,163 72	$38,178 38	$395,342 10
1881	43,902 05	2,359 29	46,261 34
1882	28,391 33	3,089 25	31,480 58
1883	26,573 85	4,039 33	30,613 18
1884	36,035 22	2,929 25	38,964 47
1885	29,199 74	2,477 23	31,676 97
1886	25,313 73	2,541 81	27,855 54
1887	33,967 31	2,376 47	36,343 78
1888	30,872 07	3,951 21	34,823 28
1889	24,123 28	6,056 46	30,179 74
1890	20,722 72	10,004 42	30,727 14
1891	25,568 51	6,412 75	31,981 26
1892	27,381 84	6,823 51	34,205 35
1893	25,743 24	8,553 66	34,296 90
1894	27,142 69	7,236 53	34,379 22
1895	23,905 82	7,598 31	31,504 13
1896	45,299 89	8,634 30	53,934 19
1897	33,976 14	8,790 00	42,766 14
1898	47,751 26	6,986 99	54,738 25
1899	51,246 07	8,594 56	59,840 63
1900	140,380 89	9,862 21	150,243 10
1901	80,276 02	13,272 25	93,548 27
1902	38,904 19	12,909 40	51,813 59
1903	29,169 75	9,034 88	38,204 63
1904	46,339 05	12,916 69	59,255 74
1905	40,831 47	9,620 62	50,452 09
1906	24,419 73	12,444 00	36,863 73
1907	47,977 73	10,797 97	58,775 70
1908	62,949 97	10,468 88	73,418 85
1909	39,013 60	11,002 42	50,016 02
1910	43,909 33	13,196 60	57,105 93
1911	34,186 56	12,836 07	47,022 63
	$1,592,688 77	$285,945 70	$1,878,584 47

*Does not include cost of connections to buildings or street inlets.

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*PRECIPITATION FOR CALENDAR YEAR—1911.

Month.	Total in Inches.	Greatest Amt. in 24 Hours.	Dates.	Portion of Storms in which the Precipitation exceeded Half Inch per Hour.	Max. Rate per Hour.—Inches.	Duration of Max. Rate.—Minutes.
Jan.	2.15	.72	27-28	Mar. 27, .18 inch in 10 min.	1.08	10
Feb.	1.57	.99	4	June 7, .28 " " 20 "	.84	20
March	3.40	1.06	27	July 5, .7 " " 21 "	3.60	8½
April	2.03	1.13	4-5	" 20, .09 " " 5 "	1.08	5
May	1.37	.65	May 31-June 1	" 24, .5 " " 30 "	1.00	30
June	2.47	.74	6-7	" 24, .33 " " 10 "	1.98	10
July	3.81	1.14	24	Aug. 15, .5 " " 30 "	1.00	30
Aug.	6.76	2.42	28-29	" 28, .5 " " 30 "	1.00	30
Sept.	3.94	1.08	9	" 29, .84 " " 50 "	1.00	50
Oct.	8.66	5.80	18-19	Sept. 11, .33 " " 20 "	.99	20
Nov.	3.35	.81	18	Oct. 18, .5 " " 30 "	1.00	30
Dec.	2.33	1.13	22-23	Nov. 12, .19 " " 15 "	.76	15
Total	41.84					

*Includes rain, melted hail, sleet and snow.

Number of days in which precipitation exceeded .01 inch,			110
Number of days during which snow and sleet fell,			33
Date of last snowfall in spring,	Apr.	19	
Date of first snowfall in fall,	Nov.	15	
Highest water in Connecticut river and date,	Apr.	17,	11.8′
Lowest water in Connecticut river and date,	Aug.	25,	3.4′
Annual range of Connecticut river,			8.4′
Mean daily height of Connecticut river,			5.68′
Greatest 24-hour rise and date,	Oct.	18,	3.5′
Greatest 24-hour fall and date,	Apr.	11,	1.2′

Rainfall since 1891 amounting to 7 Inches or more per Month.		Rainfall since 1891 amounting to 4 Inches or more in 24 Hours.	
July, 1897,	14.68 inches.	July 13, 1897,	5.08 inches.
June, 1903,	8.33 "	Aug. 1-2, 1904,	4.04 "
Aug., 1904,	7.23 "	Sept. 14-15, 1904,	4.00 "
Sept., 1907,	8.27 "	Apr. 14-15, 1909,	4.03 "
Aug., 1908,	6.99 "	Oct. 18-19, 1911,	5.80 "
Oct., 1911,	8.66 "		

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PRECIPITATION—1892-1911.

YEAR.	TOTAL IN INCHES.	YEAR.	TOTAL IN INCHES.
1892	37.70	1902	46.74
1893	39.72	1903	43.91
1894	27.43	1904	39.13
1895	36.66	1905	32.83
1896	36.33	1906	42.37
1897	53.25	1907	44.11
1898	49.18	1908	36.06
1899	34.78	1909	34.96
1900	43.62	1910	32.18
1901	52.34	1911	41.84
		Total	805.17

40.25 yearly average for 20 years.

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GENERAL STATISTICS.

City of Springfield, Mass., December 1, 1911.

Springfield is situated on the east bank of the Connecticut river, in latitude 42° 06′ north, longitude 72° 35′ west, at an elevation above sea level of from 65 to over 215 feet.

Zero of "City Base" is 27.1 feet below sea level.

State street, at corner of Main street, is 65.9 feet above sea level, or 93 feet "City Base."

State street, at corner of Walnut street, is 199.1 feet above sea level.

Sumner ave. at corner of Belmont ave. is 187.9 feet above sea level.

Highest elevation in city (Markham Hill) 320 feet above sea level.

Greatest extent of city, north and south,	5.9 miles
Greatest extent of city, east and west,	8.9 miles
Connecticut river frontage,	4.65 miles
Area, including those portions covered by water, approximately,	24,661 acres

Area by wards: Ward One, 1,733.6 acres; Two, 225.7 acres; Three, 234.8 acres; Four, 413.2 acres; Five, 400.6 acres; Six, 827.4 acres; Seven, 2,197.7 acres; Eight, 19,128.3 acres. Area taxed, 16,185 acres.

Total park areas, 589.84 acres; Forest Park, 476.10 acres.

Population, estimated April 1, 1911,			92,048
Number of voters: men, 14,849; women, 295; total,			15,144
Number of polls, April 1, 1911,			25,852
School enrollment:	public, day, 16,074		
	public, night, 2,678	18,747	
	parochial,	2,284	20,981
Valuation, April 1, 1911,	Real estate,	$102,393,230	
	Personal,	24,664,430	$127,057,660

Tax rate, $16.50 per $1,000.

Public streets accepted to Dec. 1, 1911, 160.568 miles.

	Square yards.	Miles.
Wood block,	59,613	2.287
Granite block,	36,716	2.140
*Syracuse brick,	77,920	3.700
Other brick pavers,	8,220	.753
Sheet asphalt,	7,877	.444
Asphalt blocks,	712	.037
Bitulithic,	53,417	2.879
†Macadam,	1,335,033	73.785
Gravel or dirt,		74.543
		160.568

Sidewalks laid in public streets to Dec. 1, 1911, about 174.4 miles.

*Does not include brick pavement in railway tracks around Court Square.

† Includes Pecousic avenue and Longmeadow street through Forest Park under the care of the Park Department.

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Electric railways, Dec. 1, 1911 (double track counted twice),		
In public streets,		51.230 miles
On private property,		4.379 miles
		55.609 miles
Steam railroads,	Four tracks, about	4.5 miles
	Double tracks, about	7. miles
	Single track, about	11. miles
Water mains,		188.87 miles
Gas mains, July 1, 1911,		141.98 miles
Sewers, 124.778 miles,	Brick sewers,	26.024 miles
	Vitrified clay pipe,	71.698 miles
	Cement pipe,	22.793 miles
	Wood pipe,	.193 miles
	Cast iron,	.028 miles
	Concrete,	3.917 miles
	Brick-concrete,	.125 miles

Street lights, arc,	1,247	Post offices,	4
Street lights, incandescent,	309	Post office sub-stations,	17
Dwelling houses,	14,428	Police stations,	2
Schoolhouses,	36	Railroad stations,	5
Churches,	62	Engine houses,	13

Fire apparatus: motor driven,		Fire apparatus: horse drawn,	
Hose and chemical wagons,	6	Steam fire engines,	8
Aerial trucks,	2	Hose wagons,	7
Water towers,	1	Ladder trucks,	5
Trolley transportation car,	1	Aerial truck,	1
Commercial truck,	1		
Auxiliary squad automobiles,	2		
Spare auxiliary automobile,	1		
Automobiles for Chief, Assistants, and Supt. Fire Alarm,	5		

PRINCIPAL CITY EXPENDITURES.

Assessors' department,		$14,908.64
Board of Health,	$12,069.15	
Board of Health, Isolation Hospital,	14,696.77	35,607.18
Board of Health, Isolation Hospital addition,	8,841.26	
Central Heating plant,		61,284.52

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City Engineering department,			$18,249.96
City Library Association,			54,448.28
Collector's department,			10,545.74
Commissioners of the sinking funds,			91,278.41
Contingencies,			49,114.89
County tax,			107,858.85
Fire Department,	Maintenance,	247,352.79	321,932.88
	New buildings and additions,	32,652.31	
	Fire alarm system,	30,000.00	
	Motor apparatus,	11,927.78	
Fire and Police headquarters,			177,524.05
Forestry,		18,957.90	26,611.22
Forestry, new buildings,		7,653.32	
Highways and Bridges,	Maintenance,	153,446.86	401,431.45
	Bridges,	2,838.63	
	Paving,	50,382.44	
	Macadam and Gravel,	38,418.34	
	Walks and Curbing,	14,288.04	
	Special accounts,	32,800.49	
	Ashes collection,	48,144.65	
	Garbage collection,	21,678.94	
	Watering streets,	39,433.06	
Interest,			245,526.55
Lighting streets,			104,246.23
Municipal group,			319,474.94
Pauper department,			52,749.46
Police and Watch,		154,829.58	158,213.28
Police signal equipment,		3,383.70	
Public parks (including menagerie building $27,164.44),			77,887.82
Schools,		635,098.74	685,145.77
Schools, new buildings, etc.,		50,047.03	
Sewers,			47,022.63
State Treasurer, taxes,			191,599.32
Water Works, cash expenses,		277,919.38	356,302.59
Water Works, Little river water supply,		78,383.21	
			$3,603,964.66

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OVERSEERS OF THE POOR.

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BOARD OF

OVERSEERS OF THE POOR

FOR 1911.

HON. EDWARD H. LATHROP,	*Chairman.*
ARTHUR A. CALL,	*Term expires April 1, 1912.*
JOSEPH N. BOYER, JR.,	*Term expires April 1, 1912.*
ALFRED F. H. PILLSBURY,	*Died October 5, 1911.*
WILLIAM R. THACKER, (successor to Mr. Pillsbury)	*Term expires April 1, 1913.*
HENRY P. NORRIS,	*Term expires April 1, 1914.*

EDWARD I. WHITE,	*Agent of the Board.*
JENNIE S. LOMBARD,	*Clerk of the Board.*
MARJORIE W. WARD,	*Stenographer.*
LYMAN W. SEXTON,	*Master of the Almshouse.*
JOSEPH N. BOYER, JR.,	*City Physician.*
CHARLES W. HEMENWAY,	*Keeper of Wayfarers' Lodge.*

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REPORT OF THE

BOARD OF OVERSEERS OF THE POOR

FOR THE

YEAR ENDING NOVEMBER 30, 1911.

To the City Council:—

In compliance with the ordinances of the city, we submit the following report for this department for the year ending November 30, 1911:—

During the year we were deprived of the services of a valuable member of this Board by reason of the death of Mr. Alfred F. H. Pillsbury, who had served since April 1, 1910. His courteous manner, sound judgment, kind and sympathetic nature, made him especially qualified for the duties of his office. He won the respect of his associates and his death was a distinct loss to this department, as well as to the city at large, which he had served in various capacities so long and faithfully.

The demands upon the department were about the same as in the previous year, but the total expenditure was $2,702.34 less.

The appropriation was $40,000; the receipts were $13,963.82, making the total receipts $53,963.82. The expenditures were $52,549.46, leaving a balance unexpended of $1,414.36.

In connection with receipts, expenditures, and balances, it may be of interest to refer to the following table showing them for a series of years:—

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	Appropriations.	Receipts.	Expenditures.	Balances.
1901,....	$39,000 00	$12,125 25	$48,995 27	$2,129 98
1902,....	38,000 00	11,962 18	48,417 06	1,545 12
1903,....	39,000 00	17,052 58	54,654 02	1,398 56
1904,....	34,000 00	22,396 22	55,685 39	710 83
1905,....	34,000 00	10,919 75	44,388 82	530 93
1906,....	34,000 00	13,935 50	46,264 44	1,671 06
1907,....	31,000 00 (11 mos.)	14,160 36	44,433 30	727 06
1908,....	38,500 00	13,270 44	51,387 39	383 05
1909,....	38,500 00	13,943 61	52,190 29	253 32
1910,....	40,800 00	14,915 22	55,251 80	463 42
1911,....	40,000 00	13,963 82	52,549 46	1,414 36

ALMSHOUSE.

The total number of inmates was 447, an increase of 34; the average number was 110, an increase of four over the previous year. There are usually a greater number of men than women in the Almshouse, and these men are mostly single or without dependents. Many of these men are able-bodied and should be self-supporting, but when out of the institution spend their time in idleness and dissipation. They habitually apply for winter quarters with the advent of cold weather. The lack of suitable employment at the Almshouse invites them there. The Overseers of the Poor have no authority to send them to the House of Correction or State Farm, where they are obliged to work. We are of the opinion that if this could be done it would lessen the number of such inmates. The total cost at the Almshouse was $30,756.74, the average weekly cost being $4.95. There was considerable less expenditure for repairs during the past year, but this was partially offset by increased wages paid to employees.

Extensive repairs have been made to the plumbing, the old painted iron bath tubs, which were out of date and not sanitary, have been replaced by new ones, of modern pattern, porcelain lined, which is a decided improvement. Brass pipe is being

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substituted for iron as fast as it gives out, a policy which we believe will save expense in the future. The front piazza has been carried up another story, improving the general appearance of the building, as well as serving its useful purpose.

The City Physician has made 292 visits to the Almshouse during the past year.

Owing to the dry season and extremely warm weather of the early summer, the products of the farm were somewhat less. The potato crop was practically a failure and the quantity of hay harvested was much less than usual. The following is a list of the products:—

20 bushels peas at $1,	$20 00
20 bushels beets at $1,	20 00
20 bushels summer squash at $1,	20 00
15 bushels cucumbers at $1,	15 00
20 bushels string beans at $1,	20 00
25 bushels shell beans at $1,	25 00
20 bushels tomatoes at 75 cents,	15 00
Sweet corn,	30 00
150 bushels potatoes at $1,	150 00
1,000 cabbages at 4 cents,	40 00
300 quarts strawberries at 10 cents,	30 00
10 tons hay at $20,	200 00
35,601 quarts milk at 5 cents,	1,780 05
Corn for silo,	175 00
40 bushels turnips at 25 cents,	10 00
Beef sold,	433 32
Pork sold,	396 73
	$3,380 10

OUTDOOR RELIEF.

The aid given on this account during the past two years is as follows:—

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	1910.	1911.
Disbursed direct to poor by agent,.....	$9,052 00	$9,626 18
Paid to hospitals in Springfield,.....	3,135 75	2,043 66
Paid to other cities and towns for Springfield poor,.....	937 03	1,548 74
Paid to state hospitals,.....	463 49	244 80
Totals, ...	$13,588 27	$13,463 38

It will be noticed that there has been an increase in the amount disbursed by the Agent and in the amount paid to other cities and towns for Springfield poor.

Owing to the increased cost of provisions, it has been necessary in some instances to increase the amount of the weekly allowances. It has been the practice in former years to make reductions as the younger members of the families became wage-earners, but this has been possible in a few cases only. Desertion and non-support of wife and children by the husband and father continues to be the cause for the need of much of this outdoor relief. The so-called Uniform Desertion Act, Chapter 456, Acts of 1911, was designed and enacted to remedy, if possible, this evil. By its provisions a husband, who deserts, neglects, or refuses to provide for the support and maintenance of his wife, minor child or children, is deemed guilty of a crime, and, if he goes into another state, can be arrested and extradited, a legal proceeding which has heretofore been impossible. The court may punish by a fine, not exceeding two hundred dollars, or by imprisonment for not more than one year, or by both fine and imprisonment. All fines imposed may be paid to the probation officer, and by him paid to the family, or the court may place the offender on probation, and direct him to pay a certain sum periodically to the probation officer, who shall pay over the same to the wife or minor children. If the terms of this order are violated a sentence may be imposed and it shall be the duty of the superintendent of any institution in which

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such person is confined, providing the court imposing such sentence finds the wife, child, or children of such person to be in destitute or needy circumstances, and so orders, to pay over to the probation officer at the end of each week a sum equal to fifty cents for each day's hard labor performed by the person so confined and the probation officer shall pay over such sum promptly to the family or to the parties liable for their support.

It is our opinion that if the court will enforce this act rigorously, good results will follow, and we shall be able to answer affirmatively the oft-repeated question, "Can this man be made to work and support his wife and children?"

LOCAL HOSPITALS.

There was less expense the past year than in the year previous. It was as follows:—

	1910.	1911.
Mercy Hospital, ...	$1,700 00	$1,584 41
Springfield Hospital, ...	1,435 75	435 25
Wesson Hospital, ...		24 00
	$3,135 75	$2,043 66

WAYFARERS' LODGE.

There were 1,058 tramps lodged, which was 217 more than in 1910. The net expense has been less, as we have not expended so much as in former years for the purchase of wood, and had a less amount on hand at the end of the year. This has been necessary owing to the uncertainty of the future of this institution on account of the contemplated extension of Mill street. The following is the financial statement:—

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RECEIPTS.

Wood and supplies on hand Nov. 1, 1910,.....	$812 50	
Cash sales, ...	1,831 50	
Accounts receivable, ...	66 00	
	$2,710 00	
Profit and loss,.....	524 06	
		$3,234 06

EXPENDITURES.

Salary of keeper, wood, supplies, etc.,.....		$2,656 03	
Wood delivered to the poor,.....$225 75			
Wood and supplies on hand Nov. 1, 1911, ...	352 28		
		578 03	
			$3,234 06

CONCLUSION.

The revision of the pauper settlement laws mentioned in our last report has been accomplished. The Act (Chapter 669, Acts of 1911) went into effect August 12, 1911. Except as it relates to minors and illegitimate children, it will have no force and will effect no changes until five years after its enactment as none of its provisions are retroactive. We believe that its provisions are wise, that it will simplify and make it easier to determine settlements. The expense of the support of the poor will be more equitably distributed and will be more frequently borne by the place of actual residence of the person supported, rather than by some city or town which he left years before. Chapter 394, Acts of 1911, is an Act relating to the care of persons suffering from certain mental disorders, pending their admission or commitment to appropriate institutions. We are informed that this law applies only to such cases of mental derangement as are in need of hospital treatment and require public assistance, and its chief purpose is to

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prevent the detention of such persons in a police station or lockup. It provides that, if an emergency requires the care of such a person in a police station or lockup, a physician should be immediately summoned, and proper care and nursing provided, that no person shall be detained there over twelve hours, and, if further detention is necessary, the Board of Health shall make provision. It has been impossible in some instances to secure the commitment of insane persons to the State Hospital within twelve hours and there is no suitable place in the city except the Police Station for their detention. It has also given rise to controversies as to what constitutes an emergency, with the result that we have been obliged to provide for insane persons at the Almshouse Hospital, much to the discomfort of other sick patients therein. If this act is to remain in force, some suitable place beside the Police Station should be provided for the detention of the insane pending their commitment to the State Hospitals.

Respectfully submitted,

ARTHUR A. CALL,
JOSEPH N. BOYER, M.D.
WM. R. THACKER,
HENRY P. NORRIS,

Overseers of the Poor.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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STATISTICS.

RECEIPTS.

From appropriation,	$40,000 00
Various cities and towns,	4,224 94
The Commonwealth, for temporary aid, care of sick and transportation,	1,806 32
Isolation Hospital, for heating, ambulance service and ice,	1,314 50
Individuals for care at hospitals, etc.,	3,426 25
Products of City Farm,	830 05
Sale of wood,	1,831 50
Isolation Hospital, for care of persons sick with contagious diseases and board of nurses,	530 26
	*$53,963 82

EXPENDITURES.

For the support of persons at the Almshouse,	$30,756 74
Outdoor relief, not including hospital expenses,	11,174 92
The support of patients at the Springfield, Mercy and Wesson Hospitals,	2,043 66
The State Infirmary,	36 80
The State Hospital School, Canton,	208 00
Salaries,	5,133 75
Wayfarers' Lodge,	2,656 03
Miscellaneous expenses,	539 56
	$52,549 46
Balance unexpended,	1,414 36
	*$53,963 82

* $200.00 greater in Treasurer's report represents amount advanced for office expenses and returned to the Treasurer at the end of the year.

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ALMSHOUSE.

Number of persons in Almshouse, November 1, 1910,	94
Number admitted during the year,	353
Total number of inmates,	447
Number discharged,	332
Number remaining October 31, 1911,	115
Average number of inmates,	110

OUTDOOR RELIEF.

The total number aided was:—

Having a settlement in the city,	763
Having a settlement elsewhere,	291
Having no settlement,	521
	1,575

The number of persons aided the first time was:—

Having a settlement in the city,	277
Having a settlement elsewhere,	197
Having no settlement,	362
	836

EXPENSES OF OUTDOOR RELIEF.

(Including hospital aid.)

Persons having a settlement in the city,	$7,293 74
Persons having a settlement elsewhere,	2,574 08
Persons having no settlement,	3,595 56
	$13,463 38

The total number of persons aided during the year was 2022.

Seventy-two persons have been sent to the State Infirmary at Tewksbury.

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Eighty-two persons have been aided who were non-residents, but had a settlement here.

Seventy-nine notices were received from various cities and towns and the State, of aid rendered to persons whose settlement was claimed in this city.

INVENTORY.

Almshouse furniture, fixtures and farm tools,.....	$8,171 05
Almshouse provisions and supplies,.....	8,567 97
Horses, cows and other live stock,.....	2,380 00
Office furniture and fixtures,.....	1,201 25
Wayfarers' Lodge, wood,.....	253 78
Wayfarers' Lodge, fixtures,.....	1,087 75
Wayfarers' Lodge, supplies,.....	98 50
	$21,760 30

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DETAILED STATEMENT OF EXPENDITURES IN 1910-1911.

OUTDOOR RELIEF.

	Cash.	Transportation.	Fuel.	Provisions.	Clothing.	Medicine.	Paid Cities and Towns.	Burials.	Hospital School, Canton.	State Infirmary.	Springfield Hospital.	Mercy Hospital.	Wesson Hospital.	Totals.
November,	$40 75	$38 97	$162 77	$385 15	$40 95	$11 50	$11 67	$20 00	.....	.....	.....	.....	.....	$721 76
December,	41 65	30 43	267 51	554 42	35 54	9 90	124 60	55 00	$52 00	.....	.....	.....	.....	1,171 05
January,	61 34	21 98	297 59	510 57	53 39	14 05	414 58	15 00	.....	$36 80	.....	.....	.....	1,425 30
February,	56 15	24 45	282 18	566 40	.....	37 35	.....	50 00	.....	.....	.....	.....	.....	1,016 53
March,	143 21	49 17	266 66	669 26	82 79	30 80	62 33	5 00	51 43	.....	.....	.....	.....	1,360 65
April,	16 45	9 89	22 64	513 92	21 99	32 30	63 14	45 00	.....	.....	.....	$714 15	.....	1,439 48
May,	34 50	11 09	3 00	439 45	58 55	27 20	132 50	25 00	.....	.....	.....	.....	.....	726 29
June,	37 00	10 36	.....	480 82	17 63	7 50	52 64	97 00	52 57	.....	.....	.....	.....	755 52
July,	35 00	59 01	.....	504 90	19 72	11 45	227 90	102 00	.....	.....	.....	.....	$24 00	983 98
August,	64 00	104 95	.....	460 35	8 13	22 70	47 92	21 00	.....	.....	$378 25	.....	.....	1,102 30
September,	53 50	12 75	.....	427 90	24 09	19 75	.....	5 00	52 00	.....	.....	.....	.....	594 99
October,	120 50	57 61	29 21	456 38	85 16	12 95	411 46	65 00	.....	.....	57 00	870 26	.....	2,165 53
	$704 05	$430 66	$1,331 56	$5,969 52	$437 94	$237 45	$1,548 74	$515 00	$206 00	$36 80	$435 25	$1,584 41	$24 00	$13,463 38

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DETAILED STATEMENT OF EXPENDITURES IN 1910–1911.—CONTINUED.

ALMSHOUSE.

	Maintenance.	Salaries.	Furniture and Repairs.	Totals.
November,	$635 85	$761 97	$292 08	$1,689 90
December,	712 55	760 38	522 96	1,995 89
January,	897 00	768 42	49 02	1,714 44
February,	709 46	764 67	53 81	1,527 94
March,	1,351 89	860 42	60 44	2,272 75
April,	1,364 66	777 29	69 66	2,211 61
May,	1,597 87	890 18	74 82	2,562 87
June,	1,296 33	849 16	159 45	2,304 94
July,	1,771 53	845 77	91 82	2,709 12
August,	1,552 26	807 46	418 88	2,778 60
September,	1,947 99	1,039 81	82 95	3,070 75
October,	3,849 09	813 98	1,254 86	5,917 93
	$17,686 48	$9,939 51	$3,130 75	$30,756 74

MISCELLANEOUS

	Salaries.	Miscellaneous.	Wayfarers' Lodge.	Totals.
November,	$427 09	$26 00	$179 34	$632 43
December,	428 84	42 02	309 18	780 04
January,	428 83	29 65	192 94	651 42
February,	423 59	63 68	302 26	789 53
March,	430 59	34 72	183 29	648 60
April,	425 34	48 36	160 18	633 88
May,	428 82	18 45	190 02	637 29
June,	428 62	33 39	152 21	614 42
July,	427 07	36 29	338 10	801 46
August,	430 57	23 65		454 22
September,	427 07	63 21	401 34	891 62
October,	427 12	120 14	247 17	794 43
	$5,133 75	$539 56	$2,656 03	$8,329 34

TOTALS.

	Outdoor Relief.	Almshouse.	Miscellaneous.	Grand Totals.
November,	$721 76	$1,689 90	$632 43	$3,044 09
December,	1,171 05	1,995 89	780 04	3,946 98
January,	1,425 30	1,714 44	651 42	3,791 16
February,	1,016 53	1,527 94	789 53	3,334 00
March,	1,360 65	2,272 75	648 60	4,282 00
April,	1,439 48	2,211 61	633 88	4,284 97
May,	726 29	2,562 87	637 29	3,926 45
June,	755 52	2,304 94	614 42	3,674 88
July,	983 96	2,709 12	801 46	4,494 56
August,	1,102 30	2,778 60	454 22	4,335 12
September,	594 99	3,070 75	891 62	4,557 36
October,	2,165 53	5,917 93	794 43	8,877 89
	$13,463 33	$30,756 74	$8,329 34	$52,549 46

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REPORT OF

Committee on State and Military Aid and Soldiers' Relief.

SPRINGFIELD, MASS., December 1, 1911.

To the City Council of the City of Springfield:—

The Committee on State and Military Aid, to whom is also assigned the disbursement of Soldiers' Relief under the provisions of Chapter 79, Revised Laws of Massachusetts, respectfully report to your honorable body the work of said Committee for the fiscal year 1911, in comparison with the work of the same Committee for the two fiscal years preceding, as follows:—

	1911.	1910.	1909.
State Aid, Civil War, ...	$13,082 00	$14,025 00	$13,602 00
State Aid, war with Spain, . .	132 00	136 00	114 00
Military Aid, Civil War, . . .			51 00
Military Aid, war with Spain,. .	70 00	150 00	140 00
Soldiers' Relief, actually disbursed,	3,802 59	3,905 80	3,359 86
Charged to other municipalities,	161 87	81 38	114 00
Repaid by recipients, ...	42 00	58 00	48 00
Salary and incidental expenses, .	618 34	617 55	630 93

Recipients of State and Military Aid on rolls at close of year:—

Veteran soldiers, ...	98	101	111
Widows, ...	136	134	137
Soldiers' wives, ...	6	5	9
Widowed mothers, ...	2	2	1
	242	242	258

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Recipients of Soldiers' Relief for year:—

	1911.	1910.	1909.
Families,	37	40	42
Single persons,	59	46	39
	96	86	81

It will be observed that the figures show no decrease in the number of names on the State Aid roll, although the amount paid shows less than for either of the two preceding years. The amount paid in Soldiers' Relief was slightly—about $100—less than last year, although the number of recipients increased nearly 12 per cent. It will be noticed, also, that the number of families assisted grows steadily less, the increase being in the number of single persons,—due to the fact that most of the "families" consist of aged couples, one of whom dying dissolves the "family."

Practically all of these recipients are persons of advanced age—veterans of the civil war, their wives or widows; and while the death rate is correspondingly heavy, the numbers are kept good by the contingent who, heretofore self-supporting, find themselves by reason of illness, the infirmities of age, or loss of earning power, in need of assistance. To this deserving class our city has ever extended the willing hand in such measure as has been required to meet the needs of the defenders of our nation and their dependents. This spirit and purpose your Committee has striven conscientiously to continue and carry out as circumstances might require.

Respectfully submitted for the Committee,

JAMES L. BOWEN, *Secretary.*

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BOARD OF ALDERMEN, December 11, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 11, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 11, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 12, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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REPORT OF THE

Sealer of Weights and Measures and Inspector of Coal.

SPRINGFIELD, MASS., December 4, 1911.

To the City Council of the City of Springfield:—

GENTLEMEN:—The work of this department has been earnestly carried on during the past fiscal year, both as a work of protection and of education. The matter of protecting the interests of the purchasing public is one of most vital importance altogether too often underestimated. The greed of modern business seeks every possible avenue for increase of profit on production and sales. Dishonest methods—carefully sugar-coated and attractively presented in most cases—are continually being cunningly devised and put into operation. Many of these are so formulated as to evade the provisions of existing laws, but in all cases the burden of their dishonesty comes upon the final parties—the retail seller and the consumer. The department of Weights and Measures, state and municipal, does its best to protect the public against such dishonesty as can be effectually reached; but the public itself has yet in a large degree to be educated to the duty which it owes itself, in the matter of self-protection against carelessness on the part of dealers as well as fraudulent practices on the part of manufacturers and producers. Such education this department seeks to give so far as practicable, for it is only by the intelligent co-operation of an interested public that the purposes of the department can be carried out.

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The financial showing for the year may be briefly summarized:—

Annual appropriation,	$1,500 00	
Fees collected and paid to City Treasurer,	691 26	
Receipts for the year,		$2,191 26
Salary paid James L. Bowen, Sealer,	$525 00	
Salary paid James L. Bowen, Inspector,	100 00	
Salary paid Adelbert R. Geer, Deputy,	1,000 00	
Paid Adelbert R. Geer for transportation,	250 00	
Water Department, rent of quarters,	90 00	
N. E. Telephone and Telegraph Co.,	36 55	
W. & L. E. Gurley, apparatus and supplies,	23 30	
G. N. Fiske, rubber stamps,	2 95	
Springfield Printing and Binding Co., printing,	31 60	
The Republican Co., advertising,	1 10	
Flint & Brickett Co., table,	3 60	
George Webster, fixtures,	4 60	
Boston Nickel Plate Co., plating weights,	7 70	
A. H. Phillips, merchandise,	1 82	
Stacy Machine Co., repairs,	90	
H. L. Curtis, repairs,	1 28	
Springfield Directory,	4 00	
John J. Hargreaves, sealer's acid,	2 00	
W. E. Geer, services,	2 00	
O. C. Alderman, ice tongs,	65	
Gilbert & Barker Mfg. Co., repairs,	3 91	
Homer Foot & Co., scale,	2 50	
Armorclad Mfg. Co., safe,	25 00	
Cash for office sundries,	10 40	
Disbursements for the year,		2,130 86
Balance unexpended,		$60 40

The routine work of the department, so far as it can be expressed in tabulated form, is thus shown in the annual

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report made to the Commissioner of Weights and Measures at Boston:—

	Sealed	Condemned
Platform scales, over 5,000 pounds,	68	4
Platform scales, under 5,000 pounds,	388	64
Computing scales,	258	43
All other scales,	1,354	247
Weights,	2,529	58
Dry measures,	1,097	20
Liquid measures (other than milk jars),	2,199	216
Milk jars,	3,802	297
Linear measures,	471	98
	12,166	1,047

Eight violators of laws regarding weights and measures were summoned into court on complaint of the department, seven of whom pleaded guilty and paid fines, while the eighth failed to appear, having left the city.

INSPECTOR OF COAL.

The work of the Inspector of Coal comes under two principal divisions,—(1) the testing of loads of coal in transit, and (2) oversight of the licensing of dealers in coal, large and small, as provided by the state laws. Under the first heading the tests made during the year show these very gratifying figures, which would seem sufficiently to answer the complaint frequently made at random that the public are systematically defrauded in the weight of coal delivered to them.

Number of loads reweighed,	36
Pounds of coal reweighed,	167,995
Number of loads showing exact weight,	6
Number of loads showing short weight,	7
Number of loads showing extra weight,	23

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Total pounds shortage shown,.....	240
Total pounds overweight shown,.....	1,170
Net overweight of all loads weighed, pounds,.....	930

Nearly 300 dealers in coal and coke are under license in the city. As many of these are small grocers, among whom business changes are very frequent, and as licenses are granted whenever applied for and run for a year from their date, constant attention is required, calling for not a little time and clerical work. It is gratifying to know that the Springfield system of taking care of this business is regarded in the office of the Secretary of the Commonwealth as "a model of excellence and equaled by no other city or town in the state,"—to quote the words of an unsolicited personal communication.

I desire to express sincere appreciation of the kind courtesies received at the hands of all state and municipal officers with whom my duties have brought me in contact, and my thanks to Deputy Sealer Geer for his faithful and cheerful discharge of whatever duties have come to him.

Respectfully submitted,

JAMES L. BOWEN,

Sealer of Weights and Measures and Inspector of Coal.

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BOARD OF ALDERMEN, December 11, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 11, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 11, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 12, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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REPORT OF THE

CITY PHYSICIAN.

SPRINGFIELD, MASS., January 15, 1912.

To His Honor, the Mayor, and Gentlemen of the City Council.

GENTLEMEN:—I respectfully submit the following report as City Physician:—

Number of visits made for Overseers of the Poor,	586
Number of visits made to Almshouse,	289
Number of visits made to Police Station,	187
Number of visits made for Soldiers' Relief,	38
Number of patrolmen examined,	26
Number of visits made to Wayfarers' Lodge,	2
Number of examinations made for City Solicitor,	2

In the hospital at the Almshouse, January 1, 1911, there were thirty-eight (38) patients; two hundred and ninety (290) new patients were admitted and two hundred eighty (280) discharged during the year, leaving forty-eight (48) in the hospital January 1, 1912.

There were forty-six (46) deaths at the Almshouse during the year; twenty-seven (27) males and nineteen (19) females, from the following causes:—

Male.		Female.
31, 32, 46	Alcoholism	
61	Asthma	
	Cancer	44
	Cerebral Hemorrhage	57, 60, 66, 71, 83
65	Dementia, Senile	

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Male.		Female.
74	Diabetes Mellitus	
37, 63, 64, 66	Endocarditis	36, 59
1 month, 2 months	Entero-colitis	
73	Erysipelas	
42	Fracture of Spine	
62	Gangrene, Senile	
80, 85	General Arterio-sclerosis	72, 72, 78, 82, 84, 89, 93
57, 83	Nephritis	
	Paralysis Agitans	77
40, 74	Pneumonia	4
18 hours	Premature Birth	
60	Prostatitis, Chronic	
21, 36, 41	Pulmonary Tuberculosis	
	Oedema Lungs	75
	Septicæmia	33
55	Typhoid Fever	
Total 27.		Total 19.

There were eight (8) deaths in the "outside relief," seven (7) males and one (1) female, from the following causes:—

Male.		Female.
65	General Arterio-sclerosis	
42	Hepatitis, Chronic	
67	Paralysis Agitans	
1 day, 2 days	Premature Births	
	Pneumonia	4
	Two Stillborn	
Total 7.		Total 1.

Yours respectfully,

JOSEPH N. BOYER, M.D.

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BOARD OF ALDERMEN, January 15, 1912.

Read, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, January 29, 1912.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, January 31, 1912.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., January 31, 1912.

Approved, for printing.

EDWARD H. LATHROP, *Mayor.*

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BOARD OF HEALTH.

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ORGANIZATION OF HEALTH DEPARTMENT.

BOARD OF HEALTH.

GURDON W. GORDON, ESQ., *Chairman*,
THOMAS F. REARDEN, M.D. EDGAR H. GUILD, M D.

EDGAR H. GUILD, M.D.,
Health Physician and Bacteriologist.

WILLIAM L. YOUNG, *Agent and Clerk.*
GRACE E. WARREN, *Clerk for Agent.*

SANITARY INSPECTORS.

JACOB R. SACKETT,
FRANK A. MURRAY,
HENRY WRIGHT, JR.

INSPECTORS OF MILK.

STEPHEN C. DOWNS.
JAMES A. GAMBLE.

INSPECTOR OF VINEGAR.

STEPHEN C. DOWNS.

INSPECTOR OF ANIMALS, MEATS, AND PROVISIONS.

HARRY LUKES, D.V.S.

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HOSPITAL FOR CONTAGIOUS DISEASES.

State Street.

EDGAR H. GUILD, M.D., *Physician in Charge.*

HOSPITAL STAFF.

ORLAND R. BLAIR, M.D.
WILLIAM J. LEONARD, M.D.
HENRY RITTER, M.D.
CHARLES E. STREET, M.D.

Aurist and Laryngologist.

HARRY F. BYRNES, M.D.

Visiting Physicians.

THOMAS F. REARDEN, M.D.
HENRY H. WILCOX, M.D.

MINNIE I. BACON, *Matron.*

MEDICAL INSPECTORS OF SCHOOLS.

RICHARD S. BENNER, M.D.
WALTER H. CHAPIN, M.D.
MICHAEL W. HARRINGTON, M.D.
JAMES P. HILLARD, M.D.
WALTER A. HOSLEY, M.D.
GEORGE T. LAMARCHE, M.D.
LAURENCE J. MCCARTHY, M.D.
RALPH B. OBER, M.D.
THOMAS F. REARDEN, M.D
ALLEN G. RICE, M.D.
HENRY RITTER, M.D.
ERDIX T. SMITH, M.D.
CHARLES E. STREET, M.D.

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THIRTIETH ANNUAL REPORT

OF THE

BOARD OF HEALTH.

To His Honor, the Mayor, and Members of the City Council.

GENTLEMEN:— The Board of Health hereby submits its report of the different divisions of the Health Department for the year ending December 31, 1911, for your consideration and approval.

A review of the work of the department for the year may well begin with a consideration of the changes which are taking place in the character of its work and the influences which are bringing about this continual broadening and enlarging of health department activities. The keynote for all these changes is to be found in the ever-present desire to prolong the duration of life, to prevent unnecessary sickness, improve the general conditions under which we work and live, and remove the individual from all those underlying causes of poverty, sickness, and dependency which are grouped together under the general work of public hygiene and sanitation.

The organization of societies and associations for such a variety of purposes as the improvement of social and economic conditions, the eradication of special diseases, investigation of housing conditions, feeding of babies, fresh-air schools, boys' clubs, and many other worthy and helpful endeavors, is an expression of public awakening and indicates the responsibility which must be assumed by every progressive community in adopting a more comprehensive plan of supervision of the general welfare and health of its citizens.

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The value of all this collateral work to boards of health is beyond question and due credit should be given for results obtained by these various associations. While all these efforts may be fostered and carried on for a time with efficiency by private organizations, the amount of money necessary for successful prosecution of the work is rapidly increasing and more difficult to obtain. The work is, therefore, being placed under the direction of boards of health not only by legislative action, but for the evident reason that the larger idea of health department work has come to include a development of all those agencies which have a bearing on the prevention of disease and their allied condition. The question therefore arises as to the responsibility of the city in the direction of the large expenditures necessary for work of this nature.

The ordinary routine work of a health department has to deal with what may be called the end results of all those adverse conditions of living, which are especially favorable to the spread of contagious diseases, the continuance of tuberculosis, high infantile mortality, and other preventable diseases, and unless some decided advance is made all along the line the work, as far as results are concerned, is stationary. An illustration of this statement is well shown in two diseases, typhoid fever and tuberculosis.

Typhoid fever in Springfield may be said to be looked after in an approved manner. It was formerly transmitted chiefly by water and milk. At the present time our water supply is so thoroughly protected against contamination that such a source of infection is practically eliminated. Our milk supply is under constant supervision from the producer until the time it reaches the consumer, and the milk supply of every case of typhoid fever occurring in the city is immediately investigated, and as a result no case of typhoid fever during the year has been traced to either the water or the milk supply. In other words

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the principal sources of infection are safeguarded. The work of controlling tuberculosis at present deals chiefly with the result of tuberculous infection, which is consumption. We are building hospitals for the care and segregation of advanced cases, sanatoria for incipient and hopeful cases, but the work which will produce the results hoped for is indicated by the efforts which are being made to carry the campaign of education, as to the means of prevention, to the individual and the home, and until the movement can be extended in all these directions a lessened mortality of this disease will be slow in coming.

This enlarged view of health department work is no longer advocated on humanitarian grounds. It has passed the stage of sentiment and pity for our more unfortunate citizens and at the present time is being advocated from an entirely different standpoint, namely—as an investment by the city of so many dollars in human lives. There are three thousand children born in this city a year; our factories, workshops, and growing industries are calling for more men and women to do the work required. Every one of these lives has a positive money value to the city and every death occurring from a preventable disease represents a definite loss to the community, in services, labor, and ability, which in the aggregate reaches an enormous sum when estimated in dollars and cents. Viewed in this light the present expenditures of the Board are trivial in amount when the saving in life, already accomplished, is placed on the credit side of the account. The needs of the department will call for increasing appropriations, not only on the basis of population, but to provide for the enlarging duties and work awaiting execution along these important lines. In fact these newer responsibilities point towards the organization and development of a division of health department work which might be called the social service division. Under such a division all the activities which have a bearing on the general health of the city would be taken up and carried on in such manner as to

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utilize the information gained to the best advantage, prevent duplication of work, and, as far as possible, avoid misdirected effort.

MEETINGS AND GENERAL WORK OF THE DEPARTMENT.

The complete organization of the department is printed at the beginning of this report. Regular meetings of the Board are held on the first and third Thursdays of each month for the transaction of routine business, and special meetings are held when necessary.

William L. Young, Agent of the Board, was elected Clerk in order to comply with the law regarding the appointment to this position. Dr. Walter A. Hosley was appointed a medical inspector of schools and began his duties in September. Owing to recent legislation placing medical inspectors on the list of civil service appointments, all future additions or appointments will be made through the Civil Service Commission. In compliance with a request from your Honorable Body the Board considered the matter of a public sanitary and at a meeting held November 10, 1911, passed the following vote:—

"In the judgment of the Board of Health of Springfield a public sanitary is necessary and that the same should be located on or near Court Square in the City of Springfield."

No changes have been made in the rules and regulations of the department during the year, except in reference to the temperature at which milk must be held until delivered, which was lowered from 60° F. to 50° F. Henry Wright, Jr., received a provisional appointment as Sanitary Inspector, June 30, 1911. This increase in the number of inspectors has improved the general efficiency of the inspection work and enabled the Board to enforce its regulations concerning isolation of contagious

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diseases more thoroughly. Frequent visits are now made to all placarded houses and definite knowledge is obtained as to the way in which the regulations are obeyed. Definite instructions are also given as to the manner in which infection can be prevented. Much care is taken by the inspectors in tracing the spread of different infections and the information thus obtained is of the most important nature and fully repays for the time so expended. A faithful, intelligent inspection service is a valuable asset to any health department and the Board recognizes the value of the services so freely rendered by its inspectors.

The general inspection and other routine work of the department is summarized in the following table, and shows the variety and amount of work which arises from investigation of complaints, general sanitary inspection of premises throughout the city, disinfection of rooms and houses, along with much unclassified work, all of which is under the able supervision of the Agent of the Board:—

SUMMARY OF THE GENERAL WORK OF THE DEPARTMENT.

COMPLAINTS INVESTIGATED AND CAUSE REMOVED.

Alleys, filthy,	16
Animals, dead in yard,	6
Animals, dead in street,	4
Animals, kept in cellar,	2
Animals, kept in house,	7
Ashes and rubbish in yard,	60
Barber shops, unsanitary,	2
Buildings, foul odor in,	15
Cellars, water in,	1
Cellars, filthy,	17
Cesspools, overflowing,	9
Cesspools, cleaning unlawfully,	4
Cheese factories, foul odors from,	5
Committing nuisances,	13
Complaints investigated, no cause found,	19

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Contagious diseases, suspected cases,	13
Contagious diseases, failure to observe rules relative to,	35
Dog buried in cellar,	1
Dumping grounds, papers and rubbish blown from,	7
Dumping grounds, foul odor from,	17
Dumping rubbish unlawfully,	6
Fish and meat markets, foul odors from,	4
Fowls kept in cellar,	4
Garbage in cellar,	2
Garbage thrown on ground,	26
Garbage, unsanitary receptacle,	28
Garbage, in house,	2
Gas house refuse draining into river,	1
Gas, illuminating, odor in house,	1
Horses, carcasses burned, not removed,	2
Mail car, filthy,	1
Manure heaps, foul odor from,	15
Milk, adulteration of,	31
Milk, illegal bottling of,	24
Milk, contaminated,	44
Milk, unclassified,	102
Plumbing, unsanitary,	18
Poultry yards as a nuisance,	36
Privy vaults, foul odors,	28
Rendering plants, foul odor from,	2
Schoolrooms, poor ventilation,	1
Sewer drains, stoppage of,	4
Sewer drainage in cellar,	2
Sewage draining into brook,	5
Sewer openings, foul odor from,	6
Slaughtering without a license,	2
Slops thrown on ground,	14
Stables, no receptacle for manure,	7
Stables, filthy,	4
Stables, foul odors from,	27
Stables, occupied without a license,	12
Standing water, foul odor from,	5
Stores, refuse not removed,	17
Street sweepings in yard,	4
Street, dirty,	1
Surface, sink drains, foul odors from,	3

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Swine, filthy pens,	5
Swine, keeping without a license,	8
Swine, odor from cars,	2
Tenements, filthy,	17
Tenements, unsanitary,	2
Unclassified,	22
Ventilation fan, foul odor from,	1
Vermin on person,	4
Water closets, filthy,	10
Water closets, foul odors from,	4
Water closets without water,	7
Yards, filthy,	51

SANITARY INSPECTIONS.

Alleyways,	254
Bakeries,	437
Barber shops,	71
Cellars,	72
Houses,	131
Stables,	238
Yards,	10,597

MISCELLANEOUS.

Applications for stable license,	78
Stable licenses granted,	65
Given leave to withdraw,	7
Pending,	6
Board of Health notices served by Police Department,	35
Written notices to remove nuisances,	278
Prosecutions,	2
Convictions,	2
Vaults and cesspools, abolished, sewer connection ordered,	7
Nuisances abated by Board of Health, expense charged to owners,	2
Houses fumigated,	482
Rooms fumigated,	1,581
Visits made immigrants from cholera-infected ports,	382

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VITAL STATISTICS.

The total number of deaths occurring in this city during the year 1911 was 1,412, exclusive of stillbirths, which numbered 104. This number includes 182 non-resident deaths and should be excluded from the actual death rate, as these cases came to different hospitals and institutions for treatment. Emphasis is placed on this matter for the reason that Springfield is the recognized hospital center of Western Massachusetts and patients are sent here in yearly increasing numbers. It is also easy to understand that these cases are of a serious nature, requiring skillful surgical intervention or medical care, if death is to be prevented, and in using the death rate for statistical purposes, the corrected death rate represents more accurately the mortality of the city. The population of the city is estimated at 92,048, which establishes the death rate at 15.33 per 1,000 inhabitants. Excluding non-resident deaths the death rate is actually 13.34 per 1,000 inhabitants.

A commendable willingness on the part of those whose duty it is to make out the death returns is showing good results, in a more accurate classification of diseases causing death, as shown in the tables which accompany this report. These statistics are being used continually for a variety of purposes. Accuracy and truthfulness, therefore, in filling out death returns, are the essential elements which determine their value. The department finds here the results of all the efforts made to prevent sickness and death, and along with the morbidity statistics of communicable diseases is enabled to judge of the value of preventive measures employed.

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DEATH RATE PER 1,000 POPULATION FROM 1891.

Year.	Population.	Death Rate.	Year.	Population.	Death Rate.
1891	45,615	19.25	1901	64,412	15.06
1892	46,924	21.07	1902	66,854	15.53
1893	48,233	19.86	1903	69,389	15.85
1894	49,824	15.69	1904	72,020	15.95
1895	51,522	17.87	1905	73,540	15.03
1896	53,131	17.70	1906	76,255	14.90
1897	54,790	17.06	1907	78,707	16.54
1898	56,501	17.54	1908	81,425	15.03
1899	58,266	16.09	1909	84,237	15.53
1900	62,059	18.02	1910	88,926	16.65
			1911	92,048	15.33

COMPARISON OF DEATHS FROM PRINCIPAL DISEASES BY YEARS.

Causes	1908	1909	1910	1911
Anterior Poliomyelitis			25	1
Apoplexy	41	43	59	82
Bright's Disease (Chronic)	116	136	151	152
Cancer	85	66	84	84
Diphtheria	24	33	38	9
Diabetes	16	13	16	21
Enteritis (under 2 years)	28	34	91	78
Heart Disease	93	87	108	140
Measles	1	7	12	10
Pneumonia	97	124	135	108
Scarlet Fever	8	24	19	2
Tuberculosis (Pulmonary)	70	88	72	77
Typhoid Fever	22	11	13	18
Whooping Cough	2	3	23	13
Suicides	18	15	19	14
Traumatism	38	28	58	40
Homicides		1	4	4

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REGISTERED MORTALITY FOR THE YEAR 1911.

ESTIMATED POPULATION, 92,048. DEATH RATE PER 1000 POPULATION, 15.33. TOTAL DEATHS, 1,412.

STILL BIRTHS, 104. PREMATURE BIRTHS, 66.

CAUSES OF DEATH.	TOTALS.	SEX.		SOCIAL RELATION.					NATIVITY.					AGE.													
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
1. General Diseases	316	151	165	136	128	49	3	...	80	69	64	100	3	19	10	13	6	4	2	6	13	45	44	43	30	41	35	5	....
2. Diseases of the Nervous System and of the Organs of Special Sense	135	66	69	36	53	44	1	1	26	34	27	47	1	10	6	3	....	1	....	....	1	6	8	10	15	26	29	20	....
3. Diseases of the Circulatory System	191	89	102	32	84	73	1	1	22	42	54	73	....	6	1	....	....	....	....	3	1	2	16	15	31	50	42	24	....
4. Diseases of the Respiratory System	161	86	75	67	53	41	....	....	57	30	30	44	....	20	19	4	....	2	3	....	1	9	12	16	19	21	16	19	....
5. Diseases of the Digestive System	162	95	67	105	40	17	....	....	85	25	22	30	....	74	6	2	3	1	1	4	1	8	13	13	7	15	5	9	....
6. Nonvenereal Diseases of the Genitourinary System and Annexa	193	84	109	28	98	64	3	....	19	51	57	66	....	2	....	....	1	....	....	1	....	11	17	27	25	49	43	17	....
7. The Puerperal State	18	....	18	5	13	....	....	....	4	6	2	6	....	....	....	....	....	....	1	....	1	10	5	1	....	....	....	....	....
8. Diseases of the Skin and Cellular Tissue	4	3	1	1	2	1	....	....	....	....	2	2	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....	2	....
9. Diseases of the Bones and of the Organs of Locomotion	2	2	....	1	....	1	....	....	1	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....
10. Malformations	13	3	10	13	....	....	....	....	11	2	....	....	....	11	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....
11. Diseases of Early Infancy	104	65	39	104	....	....	....	....	99	2	1	....	2	104	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
12. Old Age	10	1	9	2	1	7	....	....	....	3	3	4	....	....	....	....	....	....	....	....	....	....	....	....	....	1	3	6	....
13. Affections Produced by External Causes	98	78	20	34	46	13	1	4	5	25	22	40	6	....	2	1	2	2	4	2	4	10	20	15	11	15	5	5	....
14. Ill-defined Diseases	5	4	1	5	....	....	....	....	5	....	....	....	....	4	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....
TOTALS	1412	727	685	569	518	310	9	6	414	289	285	412	12	250	45	24	12	10	12	16	22	101	186	140	140	219	178	107	

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REPORT OF DEATHS, SPRINGFIELD, 1911.

CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.												
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
I. General Diseases.																												
1. Typhoid fever	18	12	6	8	9	1	..	..	2	7	1	8	..	..	..	..	..	..	..	..	2	10	1	4	1	..	..	..	..
2. Typhus fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Relapsing fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malaria	1	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
5. Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Measles	10	6	4	10	..	..	..	..	8	1	1	..	..	1	3	2	2	1	1	..	..	..	..	..	..	..	..	..	..
7. Scarlet fever	2	..	2	2	..	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..
8. Whooping cough	13	7	6	13	..	..	..	..	10	..	3	..	..	8	1	3	..	1	..	..	..	..	..	..	..	..	..	..	..
9. Diphtheria and croup	9	3	6	9	..	..	..	..	6	..	3	..	..	1	2	4	2	..	..	..	..	..	..	..	..	..	..	..	..
10. Influenza	9	2	7	2	2	5	..	..	1	..	5	3	..	1	..	..	..	..	..	..	..	..	..	..	1	2	4	1	..
11. Miliary fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery	1	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
15. Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas	5	2	3	2	2	..	1	..	1	1	1	2	..	1	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..
19. Other epidemic diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
20. Purulent infection and septicæmia	3	3	..	..	3	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..
21. Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22. Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23. Rabies	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24. Tetanus	1	..	1	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25. Mycoses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26. Pellagra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
27. Beriberi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
28. Tuberculosis of the lungs	77	42	35	36	34	7	..	..	21	13	18	23	2	..	3	..	1	..	..	2	5	21	22	13	7	2	1	..	..
29. Acute miliary tuberculosis	2	1	1	1	1	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
30. Tuberculous meningitis	6	3	3	6	..	..	..	..	4	..	1	1	..	2	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..
31. Abdominal tuberculosis	11	5	6	4	7	..	..	..	3	3	..	5	..	..	..	1	..	..	..	1	1	3	5	..	..	..	..	..	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.														
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1–2.	2–3.	3–4.	4–5.	5–10.	10–15.	15–20.	20–30.	30–40.	40–50.	50–60.	60–70.	70–80.	Over 80.	Unknown.
I. General Diseases—Continued.																												
32. Pott's disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
33. White swelling	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34. Tuberculosis of other organs	4	3	1	1	3	..	..	..	1	1	..	2	..	..	..	..	..	..	..	1	..	1	1	..	1	..	..	..
35. Disseminated tuberculosis	1	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
36. Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
37. Syphilis	3	1	2	3	..	..	..	..	2	1	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
38. Gonococcus infection	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
39. Cancer and other malignant tumors of the buccal cavity	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
40. Cancer and other malignant tumors of the stomach, liver	29	12	17	5	10	14	..	..	2	5	8	14	..	..	..	1	..	..	..	..	..	..	1	3	5	8	11	..	..
41. Cancer and other malignant tumors of the peritoneum, intestines, rectum	16	6	10	1	11	4	..	..	2	6	4	4	..	..	..	..	..	..	..	..	..	..	1	1	2	5	5	2	..
42. Cancer and other malignant tumors of the female genital organs	15	..	15	2	8	5	..	..	..	4	6	5	..	..	..	..	..	..	..	..	..	..	2	7	2	..	4	..	..
43. Cancer and other malignant tumors of the breast	13	..	13	2	9	2	..	..	2	4	4	3	..	..	..	..	..	..	..	..	..	..	1	5	1	5	1	..	..
44. Cancer and other malignant tumors of the skin	3	3	..	2	..	1	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..
45. Cancer and other malignant tumors of other or unspecified organs	5	4	1	2	2	1	..	..	1	2	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	3	..	..	..
46. Other tumors (tumors of the female genital organs excepted)	2	1	1	1	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..
47. Acute articular rheumatism	7	4	3	6	1	..	..	..	3	2	2	..	..	..	..	..	..	..	1	1	..	1	3	1	..	..	..	..	..
48. Chronic rheumatism and gout	2	1	1	1	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..
49. Scurvy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50. Diabetes	21	10	11	6	10	5	..	..	3	5	6	7	..	..	..	..	..	..	..	1	1	..	1	..	6	7	5	..	..
51. Exophthalmic goitre	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
52. Addison's disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.													
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80	Unknown.
I. General Diseases—Continued.																											
53. Leuchæmia	4	3	1	2	2	..	..	..	2	1	..	1	..	..	..	..	..	..	..	..	1	1	..	..	2	..	..	..
54. Anemia, chlorosis	4	2	2	..	2	2	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	..
55. Other general diseases	3	1	2	2	1	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..
56. Alcoholism (acute or chronic	15	12	3	5	6	2	2	..	1	5	..	8	1	..	..	..	..	..	..	..	..	5	5	2	2	1	..	..
57. Chronic lead poisoning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58. Other chronic occupation poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
59. Other chronic poisonings	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	316	151	165	136	128	49	3	..	80	69	64	100	3	19	10	13	6	4	2	6	13	45	44	43	30	41	35	5	..
II. Diseases of the Nervous System and of the Organs of Special Sense.																													
60. Encephalitis	4	1	3	2	2	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	1	..	3	..	..	..	..	..
61. Meningitis	13	9	4	9	3	..	1	..	8	2	..	2	1	3	3	1	..	1	..	..	..	1	1	3	..	..	..	..	..
61A. Cerebro-spinal fever	1	..	1	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
62. Locomotor ataxia	4	3	1	1	2	1	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	..	..
63. Other diseases of spinal cord	4	2	2	2	1	1	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3	..	..
63A. Acute anterior poliomyelitis	1	..	1	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
64. Cerebral hemorrhage, apoplexy	82	38	44	6	38	38	..	..	5	25	19	33	..	1	..	..	..	..	..	..	..	1	4	3	12	19	22	20	..
65. Softening of the brain	2	2	..	..	1	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
66. Paralysis without specified cause	3	1	2	..	1	1	..	1	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..
67. General paralysis of the insane	2	1	1	..	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..
68. Other forms of mental alienation	2	1	1	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
69. Epilepsy	4	1	3	3	1	..	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..
70. Convulsions (non-puerperal)	2	..	2	1	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
71. Convulsions of infants	6	5	1	6	..	..	..	..	6	..	..	..	..	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
72. Chorea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
73. Neuralgia and neuritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
74. Other diseases of the nervous system	2	..	2	2	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.												
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
75. Diseases of the eyes and their annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
76. Diseases of the ears	3	2	1	2	..	1	..	..	2	..	..	1	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..
Total	135	66	69	36	53	44	1	1	26	34	27	47	1	10	6	3	..	1	..	..	1	6	8	10	15	26	29	20	..
III. Diseases of the Circulatory System.																													
77. Pericarditis	2	2	..	1	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..
78. Acute endocarditis	9	3	6	4	4	1	..	..	1	3	3	2	..	2	..	..	..	..	..	..	..	1	2	2	2	..	..	..	..
79. Organic diseases of the heart	140	67	73	23	62	53	1	1	20	25	37	58	..	4	..	..	..	..	..	2	..	1	12	10	27	40	32	12	..
80. Angina pectoris	13	7	6	..	8	5	..	..	..	5	7	1	..	..	..	..	..	..	..	..	..	..	1	1	..	4	5	2	..
81. Diseases of the arteries, atheroma, aneurism, etc	21	8	13	2	7	12	..	..	1	7	5	8	..	..	..	..	..	..	..	..	..	..	..	1	1	6	4	9	..
82. Embolism and thrombosis	4	2	2	..	2	2	..	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	1	..
83. Diseases of the veins (varices, hemorrhoids, phlebitis, etc.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
84. Diseases of the lymphatic system (lymphangitis, etc.)	1	..	1	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. Hemorrhage; other diseases of the circulatory system	1	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Total	191	89	102	32	84	73	1	1	22	42	54	73	..	6	1	..	..	..	..	3	1	2	16	15	31	50	42	24	..
IV. Diseases of the Respiratory System.																													
86. Diseases of the nasal fossæ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87. Diseases of the larynx	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the thyroid body	1	1	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
89. Acute bronchitis	7	5	2	5	2	..	..	..	4	..	1	2	..	1	3	..	..	..	..	..	..	..	..	1	1	..	..	1	..
90. Chronic bronchitis	4	2	2	..	2	2	..	..	..	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..
91. Broncho-pneumonia	39	22	17	24	6	9	..	..	21	8	4	6	..	11	2	1	..	1	..	..	..	2	..	2	1	..	5	7	..
92. Pneumonia	108	55	53	36	42	30	..	..	31	21	24	32	..	7	7	3	..	1	3	..	1	7	10	13	16	20	10	10	..
93. Pleurisy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
94. Pulmonary congestion, pulmonary apoplexy	1	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..

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	CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.													
			Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1–2.	2–3.	3–4.	4–5.	5–10.	10–15.	15–20.	20–30.	30–40.	40–50.	50–60.	60–70.	70–80.	Over 80.	Unknown.
95.	Gangrene of the lungs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
96.	Asthma	1	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
97.	Pulmonary emphysema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
98.	Other diseases of the respiratory system (tuberculosis excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total	161	86	75	67	53	41	..	..	57	30	30	44	..	20	19	4	..	2	3	..	1	9	12	16	19	21	16	19	..
V.	**Diseases of the Digestive System.**																													
99.	Diseases of the mouth and annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
100.	Diseases of the pharynx	3	1	2	2	1	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..
101.	Diseases of the œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
102.	Ulcer of the stomach	8	4	4	..	5	3	..	..	..	..	1	7	..	..	..	..	..	..	..	..	..	..	2	1	1	3	..	1	..
103.	Other diseases of the stomach (cancer excepted)	7	3	4	2	2	3	..	..	2	3	1	1	..	1	..	..	..	1	..	..	.	..	..	1	1	..	1	2	..
104.	Diarrhœa and enteritis (under 2 years)	78	49	29	78	..	..	..	..	70	6	2	..	..	72	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
105.	Diarrhœa and enteritis (2 years and over)	8	2	6	1	3	4	..	..	.	3	5	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1	1	4	..
106.	Hookworm disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
107.	Intestinal parasites	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108.	Appendicitis and typhlitis	14	12	2	8	5	1	.	..	2	4	4	4	..	..	..	1	..	..	..	2	..	5	5	..	1	..	..	..	..
109.	Hernia, intestinal obstruction	8	3	5	..	4	4	..	..	1	1	3	3	..	..	..	..	..	..	..	..	..	..	..	1	..	5	1	1	..
110.	Other diseases of the intestines	3	2	1	1	1	1	..	..	..	1	..	2	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1	..	..
111.	Acute yellow atrophy of the liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112.	Hydatid tumor of the liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
113.	Cirrhosis of the liver	16	11	5	6	10	..	..	..	3	2	4	7	..	..	..	..	..	..	..	..	..	1	4	5	1	5	..	..	..
114.	Biliary calculi	2	2	..	..	2	..	..	..	..	1	..	1	..	..	..	..	..	.	..	..	..	..	.	1	1	..	..	..	..
115.	Other diseases of the liver	7	3	4	3	3	1	..	..	4	1	1	1	..	..	..	..	1	..	..	1	..	..	1	..	1	1	1	1	..
116.	Diseases of the spleen	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.													
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
117. Simple peritonitis (non-puerperal)	6	2	4	4	2	..	..	..	2	1	1	2	..	1	..	1	1	..	..	1	..	..	..	2	..	..	..	..	..
118. Other diseases of the digestive system (cancer and tuberculosis excepted)	2	1	1	..	2	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..
Total	162	95	67	105	40	17	..	..	85	25	22	30	..	74	6	2	3	1	1	4	1	8	13	13	7	15	5	9	..
VI. Non-venereal Diseases of the Genitourinary System and Annexa.																													
119. Acute nephritis	17	7	10	3	12	2	..	..	3	4	4	6	..	1	..	..	1	..	..	..	..	4	3	4	1	1	2	..	..
120. Chronic Bright's disease	152	68	84	22	73	55	2	..	14	39	45	54	..	1	..	..	..	..	..	1	..	4	9	21	22	42	38	14	..
121. Chyluria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
122. Other diseases of the kidneys and annexa	2	1	1	..	2	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
123. Calculi of the urinary passages	3	1	2	..	1	2	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..
124. Diseases of the bladder	2	1	1	1	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..
125. Diseases of the urethra, urinary abscess, etc	1	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
126. Diseases of the prostate	5	5	..	..	2	3	..	..	..	1	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	2	..
127. Non-venereal diseases of the male genital organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
128. Uterine hemorrhage (non-puerperal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
129. Uterine tumor (non-cancerous)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
130. Other diseases of the uterus	3	..	3	..	2	1	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..
131. Cysts and other tumors of the ovary	1	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
132. Salpingitis and other diseases of the female genital organs	7	..	7	1	5	..	1	..	..	3	4	..	..	..	..	..	..	..	..	..	..	2	4	1	..	..	..	..	..
133. Non-puerperal diseases of the breast (cancer excepted)																													
Total	193	84	109	28	98	64	3	..	19	51	57	66	..	2	..	..	1	..	..	1	..	11	17	27	25	49	48	17	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.												
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
VII. The Puerperal State																												
134. Accidents of pregnancy	2	..	2	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
135. Puerperal hemorrhage	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
136. Other accidents of labor	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137. Puerperal septicæmia	12	..	12	4	8	..	..	..	3	4	..	5	..	..	..	..	..	..	..	..	1	6	5	..	..	..	..	..	..
138. Puerperal albuminuria and convulsions	4	..	4	1	3	..	..	..	1	..	2	1	..	..	..	..	..	..	1	..	..	2	..	1	..	..	..	..	..
139. Puerperal phlegmasia alba dolens, embolus, sudden death	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
140. Following childbirth (not otherwise defined)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of the breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	18	..	18	5	13	..	..	..	4	6	2	6	..	..	..	..	..	..	1	..	1	10	5	1	..	..	..	..	..
VIII. Diseases of the Skin and Cellular Tissue.																													
142. Gangrene	4	3	1	1	2	1	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..
143. Furuncle	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
144. Acute abscess	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
145. Other diseases of the skin and annexa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	4	3	1	1	2	1	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..
IX. Diseases of the Bones and of the Organs of Locomotion.																													
146. Diseases of the bones (tuberculosis excepted)	2	2	..	1	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..
147. Diseases of the joints (tuberculosis and rheumatism excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
148. Amputations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.													
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
IX. Diseases of the Bones and of the Organs of Locomotion.—Continued.																													
149. Other diseases of the organs of locomotion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	2	2	..	1	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..
X. Malformations.																													
150. Congenital malformations (stillbirths not included).	13	3	10	13	..	..	..	..	11	2	..	..	..	11	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	13	3	10	13	..	..	..	..	11	2	..	..	..	11	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
XI. Diseases of Early Infancy.																													
151. Congenital debility, icterus, and sclerema	29	19	10	29	..	..	..	..	27	1	1	..	..	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
151B. Premature birth	66	41	25	66	..	..	..	..	65	1	..	..	..	66	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152. Other diseases peculiar to early infancy	7	5	2	7	..	..	..	..	7	..	..	..	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153. Lack of care	2	..	2	2	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	104	65	39	104	..	..	..	..	99	2	1	..	2	104	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Old Age.																													
154. Senility	10	1	9	2	1	7	..	..	..	3	3	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	6	..
Total	10	1	9	2	1	7	..	..	..	3	3	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	6	..
XIII. Affections Produced by External Causes.																													
155. Suicide by poison	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
156. Suicide by asphyxia	3	3	..	1	2	..	..	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..
157. Suicide by hanging or strangulation	2	2	..	..	2	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
158. Suicide by drowning	2	2	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..
159. Suicide by firearms	5	4	1	2	2	..	..	1	..	..	1	3	1	..	..	..	..	..	..	..	..	1	3	..	1	..	..	..	..
160. Suicide by cutting or piercing instruments	1	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..

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CAUSES OF DEATH.	Totals.	Sex.		Social Relation.					Nativity.					Age.														
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70	70-80.	Over 80.	Unknown.
XIII. Affections Produced by External Causes.—Continued.																												
161. **Suicide by jumping from high places**	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
162. Suicide by **crushing**	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
163. Other suicides	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164. Poisoning by food	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
165. Other acute poisonings	4	3	1	2	2	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..
166. Conflagration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
167. Burns (conflagration excepted)	7	2	5	5	..	2	..	..	2	3	1	1	..	..	1	..	1	1	1	..	..	1	..	..	..	1	1	..
168. Absorption of deleterious gases (conflagration excepted)	6	4	2	3	1	2	..	..	..	1	4	1	..	..	1	..	..	..	..	..	..	1	1	1	1	1	..	..
169. Accidental drowning	5	4	1	4	1	..	..	..	..	..	1	3	1	..	..	..	..	..	..	1	1	1	1	..	1	..	..	..
170. Traumatism by firearms	1	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
171. Traumatism by cutting or piercing instruments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
172. Traumatism by fall	16	13	3	3	11	1	1	..	..	4	4	8	..	..	..	..	..	..	..	..	..	8	4	4	2	2	..	1
173. **Traumatism in mines or quarries**	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
174. **Traumatism by machines**	4	4	..	3	1	..	..	..	..	3	..	1	..	..	..	..	..	..	1	..	1	1	..	..	..	1	..	..
175. Traumatism by other **crushing** (vehicles, railroads, landslides, etc.)	19	18	1	5	10	2	..	2	3	4	2	8	2	..	..	..	1	1	1	1	..	2	4	3	1	4	1	..
176. Injuries by **animals**	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
177. Starvation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. **Excessive cold**	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. **Effects of heat**	8	6	2	2	4	1	..	1	..	3	3	1	1	..	..	..	..	..	..	..	..	..	2	..	3	2	1	..
180. **Lightning**	1	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
181. **Electricity (lightning excepted)**	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
182. **Homocide by firearms**	3	3	..	1	2	..	..	..	..	..	1	2	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..

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REPORT OF DEATHS, SPRINGFIELD, 1911.—CONTINUED.

CAUSES OF DEATHS.	Totals.	Sex.		Social Relation.					Nativity.					Age.													
		Males.	Females.	Single.	Married.	Widowed.	Divorced.	Unknown.	Springfield.	Mass.	Other States.	Foreign.	Unknown.	Under One.	1-2.	2-3.	3-4.	4-5.	5-10.	10-15.	15-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	Over 80.	Unknown.
XIII. Affections Produced by External Causes.—Continued.																													
183. Homocide by cutting or piercing instruments	1	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
184. Homocide by other means	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
185. Fractures (cause not specified)	7	3	4	1	1	5	..	..	..	2	2	3	..	..	..	..	..	..	..	..	1	..	..	1	..	1	1	3	..
186. Other external violence	2	2	..	1	1	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..
Total	98	78	20	34	46	13	1	4	5	25	22	40	6	..	2	1	2	2	4	2	4	10	20	15	11	15	5	5	..
XIV. Ill-defined Diseases.																													
187. Ill-defined organic disease	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
188. Sudden death	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
189. Cause of death not specified or ill-defined	5	4	1	5	..	..	..	..	5	..	..	..	..	4	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Total	5	4	1	5	..	..	..	..	5	..	..	..	..	4	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
TOTALS	1412	727	685	569	518	310	9	6	414	289	285	412	12	250	45	24	12	10	12	16	22	101	186	140	140	219	178	107	..

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COMMUNICABLE DISEASES.

Infectious and contagious diseases are not as definitely separated as formerly, owing to changes in ideas and theories concerning the manner in which disease is transmitted. The air-borne theory of infection as well as that founded on the transmission of disease through the medium of gases, odors, foul smells, miasms, etc., is no longer given serious consideration by the Board, and the work of the department in controlling and preventing the occurrence and spread of this class of diseases is based more especially on what may be called the contact-theory of infection. If we add to the direct exposure to disease, the large number of unrecognized or missed cases, along with those who are now known as carriers, which are transmitting infection, we have a satisfactory explanation for the continuance and spread of disease, whether sporadic or epidemic, without resorting to other less tangible theories. A study of the records kept by the department gives all the evidence required to justify a continuance of the work along these lines in as forceful and practical manner as possible until it is demonstrated that the desired results are not being obtained. In addition to the tables showing the number of reported cases of communicable diseases occurring by months, other tables are introduced giving data from previous years, including the mortality arising from the more prevalent diseases. These tables become of interest in showing the progress which is being made in the general warfare against disease. It would not be within the province of this report to enter into any discussion or explanation of the reason why so little progress is being made in the prevention and cure of those diseases occupying such a prominent place in the mortality rate. It furnishes, however, opportunity for serious reflection and thoughtful consideration for the plea that is coming from every direction for a great social, hygienic, and economic uplift administered on the broadest and most comprehensive lines.

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TABLE SHOWING REPORTED CASES OF COMMUNICABLE DISEASES BY MONTHS.

Diseases.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Actinomycosis..	....	....	....	....	....	....	....	....	....	....	....	....	...
Asiatic Cholera..	....	....	....	....	....	....	...	....	....	....	....	....	....
Cerebro - Spinal Meningitis....	....	....	....	....	1	....	....	....	....	....	....	....	1
Diphtheria.....	12	10	7	8	9	18	7	7	13	10	16	15	132
Glanders.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Leprosy.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malignant Pustule.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Measles.....	9	30	67	87	86	50	20	8	15	35	44	85	536
Ophthalmia Neonatorum.....	2	1	2	2	1	....	1	2	1	3	....	....	15
Scarlet Fever...	15	23	34	30	17	7	4	1	4	8	15	21	179
Smallpox.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tetanus.....	....	....	1	....	2	....	....	1	....	....	1	....	5
Trichinosis.....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuberculosis....	14	8	25	20	17	18	14	14	5	8	9	13	165
Typhoid Fever..	2	2	2	2	1	10	13	9	8	12	7	5	73
Typhus Fever...	....	....	....	....	....	....	....	....	....	....	....	....	....
Varicella.....	21	5	5	7	14	8	....	....	5	9	17	22	113
Whooping Cough	14	7	18	13	15	8	19	5	23	10	10	11	153
Yellow Fever....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anterior Poliomyelitis.....	1	....	....	....	....	....	....	....	1	3	2	1	8

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TABLE SHOWING REPORTED CASES AND DEATHS OF COMMUNICABLE DISEASES BY YEARS.

Diseases.	1908.		1909.		1910.		1911.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Actinomycosis	....	....	....	....	....	....	....	....
Asiatic Cholera	....	....	....	....	....	....	....	....
Cerebro-Spinal Meningitis	1	2	1	1	3	3	1	1
Diphtheria	287	24	328	33	336	38	132	9
Glanders	....	....	....	....	....	....	....	....
Leprosy	....	....	....	....	....	....	....	....
Malignant Pustule	....	....	....	....	....	....	....	....
Measles	92	1	324	7	551	12	586	10
Ophthalmia Neonatorum	1	....	7	....	12	2	15	....
Scarlet Fever	173	8	138	24	155	19	179	2
Smallpox	....	....	....	....	....	....	....	....
Tetanus	2	3	1	....	5	4	5	1
Trichinosis	....	....	....	....	....	....	....	....
Tuberculosis	91	82	106	101	137	87	165	101
Typhoid Fever	90	22	57	11	73	13	73	18
Typhus Fever	....	....	....	....	....	....	....	....
Varicella	52	1	121	....	57	....	113	....
Whooping Cough	16	2	59	3	106	23	153	13
Yellow Fever	....	....	....	....	....	....	....	....
Anterior Poliomyelitis	....	....	....	....	130	25	8	1

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TUBERCULOSIS.

One hundred and thirty-seven cases of tuberculosis were reported during the year with 77 deaths from pulmonary tuberculosis and 24 deaths from all other forms. A comparison of reported cases with number of deaths does not furnish any conclusive evidence as to what is being accomplished, for a good many reasons, and an optimistic feeling is important in the prosecution of all the different activities being planned. The campaign against tuberculosis is now well under way and the responsibility of the city in caring for this disease is being more clearly defined by legislative enactment. As the work progresses the magnitude of the task becomes apparent. It has now reached the stage where the expenditures involved cannot be assumed by private associations, and the management of the work will be placed in a large degree upon the Health Department of the city. In providing for the care of tuberculous patients a good beginning has been made. A tuberculosis ward, with a capacity for twenty-five patients, is approaching completion. This ward will be devoted to the care of advanced cases of tuberculosis and will supply a most pressing need by affording a place where these dangerous cases can be relieved and made comfortable. The large number of incipient and more hopeful cases, which should be cured or the progress of the disease arrested by a prolonged sanatorium treatment, cannot be received in this ward, and plans should be considered at any early period for a group of buildings which will be devoted to this purpose. The attitude of the State as to enlarging accommodations in sanatoria for such cases will, of course, become a determining factor in the further development of the tuberculosis hospital by the city. If satisfactory progress is to be made in the control or eradication of tuberculosis the pioneer work, which has been so well inaugurated by our local tuberculosis association must be supplemented by the adoption of a comprehensive plan of action which, amongst other things,

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will provide that no case of tuberculosis in this city, either incipient or advanced, remains uncared for or without treatment. Tuberculosis is chiefly a house disease and is transmitted to a great extent by more or less intimate contact with those having the disease. Its communicability is not of such a dangerous nature that any one need contract the disease, and it is in the work of education of the individual, as to the means and precautions to be used in his relation with those infected, that great good can be accomplished. This educational and preventive work comes especially within the province of tuberculosis associations and should be most successfully carried on by them, in its various phases, by the different workers of such organizations. Co-operation and persistent effort are the essentials for success. Attention is directed to recent legislation which calls for establishing and maintaining a dispensary for tuberculosis by all cities and towns with a population of ten thousand or over. The Tuberculosis Association is maintaining a dispensary at the present time and it is submitted that this arrangement would satisfy the requirements of the law for the immediate future.

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TABLE SHOWING DEATH RATE OF TUBERCULOSIS FROM 1890, ESTIMATED ON POPULATION.

YEAR.	POPULATION.	DEATHS.	RATE.
1890	*44,179	114	2.58
1895	*51,522	97	1.88
1900	*62,059	111	1.78
1901	64,412	122	1.96
1902	66,854	111	1.66
1903	69,389	114	1.64
1904	72,020	123	1.7
1905	*73,540	120	1.63
1906	76,255	116	1.52
1907	78,707	114	1.44
1908	81,425	91	1.11
1909	84,237	101	1.19
1910	*88,926	87	.97
1911	92,048	101	1.09

*Official Census.

TYPHOID FEVER.

Seventy-three cases of typhoid were reported during the year. Cases sent from other towns to hospitals for treatment are not included in this number, but the deaths occurring are required to be reported here. Eighteen deaths were reported, ten of these were non-residents, leaving eight deaths as the proper number to be used in estimating the case mortality, which would be 10.9 per cent. An analysis of reported cases shows that 34 were imported cases or gave a history of being out of town within thirty days of the commencement of the disease. Ten secondary cases developed from contact with previous cases, leaving 29 cases, the origin of which could not be determined. It is extremely difficult to trace the source of infection in all cases owing to the various ways in which typhoid fever may be transmitted. Carelessness in handling or disposing of bodily excretions will result in the extension of the disease, as noted in the history of these ten secondary cases.

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The same precautions should be taken by all those who come in contact with the patient as are used in other contagious diseases. The hands should be washed in antiseptic solution after waiting on the patient, and all dishes and utensils used by the patient should be sterilized by boiling. All bed linen or other clothing soiled by the patient should be placed in a tub or other receptacle containing a disinfecting solution and allowed to remain for some time. In other words, there must be continual bedside disinfection carried on during the entire illness of the patient, and this should properly be continued until such time as the bodily dejecta are shown to be free from typhoid bacilli by bacteriological examination of the urine and feces.

DIPHTHERIA.

One hundred and thirty-two cases of diphtheria were reported during the year with nine deaths, giving a case mortality of 6.7 per cent against 11.3 per cent in 1910. These figures indicate that the work which is being done by the medical inspectors of schools and physicians in taking swabs of every case of infected throat in conjunction with the work of the department is efficient, and the methods used in controlling the disease as reliable as those which involve greater hardship and expense to those affected by the regulations.

SCARLET FEVER.

One hundred and seventy-nine cases of scarlet fever were reported, an increase of 28 cases over 1910. The case mortality, however, is greatly reduced being 1.1 per cent against 13.7 per cent in 1910. This low mortality indicates the mild type of the disease which has prevailed throughout the year. In fact the clinical symptoms have been so indefinite that probably there has been a number of cases not reported. The necessity for the same care and precautions in isolation is not influenced

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by the type of the disease, and parents are especially cautioned to bear in mind that the mild cases are fully as liable to develop complications as the severer cases, as many cases of kidney disease are traceable to a previous illness of scarlet fever.

POLIOMYELITIS.

Springfield has not been visited with this disease during the year in an epidemic form. Eight cases with one death have been reported. According to the older idea this is the off year and a recurrence of the disease will be due in 1912. If such proves to be the case, the present theories as to the way in which the disease is transmitted will have to be modified. The department is anxiously awaiting the approach of the summer months and will utilize all the methods adopted in 1910 with increased force on the first appearance of the disease. The greater or less degree of contagiousness is a secondary matter, neither is a low mortality to be considered. It is the large number of children handicapped for life by the effects of this disease which calls for more than a "let alone" policy and an academic discussion of the cause of the disease.

OTHER COMMUNICABLE DISEASES.

Measles, chicken pox, and mumps have been very prevalent during the year. The mortality for measles is confined chiefly to children under five years of age and parents should take every precaution in preventing the occurrence of the disease in infants and young children.

INFANTILE MORTALITY.

The total number of deaths from all diseases under one year of age for 1911 was 250 and the birth registration 2,900; this gives a mortality of 116 per 1,000 births, or 8.62 per cent.

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The number of deaths from entero-colitis under two years of age was 78, the number occurring under one year was 72, and under three months 29. All deaths from intestinal affection are attributed in a great measure to the character of the milk supply, it being taken for granted that all infants dying in the first year of life are bottle-fed babies. This, of course, is not a fact, neither is milk responsible for all the deaths. There are numerous other factors which have an important bearing on infantile mortality and it is essential that these be given their proper place before asserting that milk is alone responsible for the high mortality which prevails in some places. High temperature, improper feeding, neglect and lack of intelligent care, lack of sunlight and fresh air, form a combination of conditions which are now admitted to exert as much influence on the mortality rate as the one item of milk. Another important matter is the number of premature births and weaklings, who being handicapped from birth fail to live under any adverse conditions. All these things modify any broad statement connecting milk with infantile mortality. The death returns show that 121 infants died in this city under three months of age; of this number 92 were of the class last mentioned, and 29 were placed under entero-colitis. Again, clean, cold, sanitary milk was no doubt delivered to some of these 121 infants, but was improperly cared for after delivery. No blame can be placed on the character of the milk for this negligence and carelessness.

As a matter of fact there is brought into this city every day from 69 dairies, 5,000 quarts of milk, sufficient to feed every baby in the city, which will come up to any standard prescribed by those especially interested in the proper feeding of infants, either as regards quality, fats, or bacterial contents. In other words, this milk is for all practical purposes in the certified milk class. Insanitary housing conditions and other influences offer a most fruitful field for work in the reduction

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of infantile mortality because, in the final analysis, these important adverse conditions become the ultimate cause in a great majority of cases.

HOSPITAL FOR CONTAGIOUS DISEASES.

The recommendations and plans of the Board for modern facilities at the hospital are being carried out in a satisfactory manner and when the entire group of buildings is erected a most complete hospital for contagious diseases will be provided. Owing to the difficulty in continuing operations during the progress of the work the hospital has been closed since September 1st. The special committee, having charge of the repairs, expect to complete the work, at present contemplated, in a few weeks. Fortunately for all concerned, the city has been comparatively free from contagious diseases requiring hospital treatment during the fall and early winter months, but the closure of the hospital has made the work of caring for these cases much more exacting and difficult, with considerable dissatisfaction on the part of physicians and the public. Occupation and time will only decide to what extent the present alterations will provide for the needs of the city. The Board, however, has every confidence in feeling that whatever is shown to be necessary in the direction of enlarged facilities will be forthcoming at the proper time, and will undertake to utilize the accommodations thus far provided to the best advantage, in caring for the different contagious diseases. Owing to the decided decrease in number of cases of diphtheria in the city during the year, and to the mild type of scarlet fever which has prevailed, the number of patients at the hospital has also decreased. There is a minimum fixed expense in the operation of the hospital and the cost per patient per day is at its lowest when the wards are full of patients. The usual data concerning the work of the hospital appears in the following tables:—

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Number of patients in hospital January 1, 1911,	8
Number of patients in hospital December 31, 1911,	2
Number of patients admitted during the year,	89
Number of deaths from diphtheria,	0
Number of deaths from scarlet fever,	0
Largest number of patients in hospital at any time,	22
Smallest number of patients in hospital at any time,	1
Youngest patient treated for diphtheria,	16 months
Oldest patient treated for diphtheria,	47 years
Youngest patient treated for scarlet fever,	22 months
Oldest patient treated for scarlet fever,	46 years
Average number of days for diphtheria,	17.8
Average number of days for scarlet fever,	35.7
Number of intubations for diphtheria,	6
Number of intubations for others,	1
Number of deaths following intubations,	0
Number of measles admitted,	5
Number of diphtheria and scarlet fever,	1
Number of others,	13
Number of private patients,	25
Number of physicians treating private cases,	15
Number of days for all patients,	2,282

PATIENTS ADMITTED BY MONTHS.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Diphtheria	6	4	2	6	1	6	2	1	1*	0	0	0	29
Scarlet Fever	3	3	11	13	5	2	0	0	0	0	0	2	39
Measles	0	1	2	1	1	0	0	0	0	0	0	0	5
Mixed Infection	0	0	0	0	0	1	0	0	0	0	0	0	1
Anterior Poliomyelitis	0	0	0	0	0	0	0	0	0	0	1	0	1
Tuberculosis	0	1	0	0	0	0	0	0	0	0	0	0	1
Others	1	0	3	3	4	0	0	2	0	0	0	0	13
Total	10	9	18	23	11	9	2	3	1	0	1	2	89

*Hospital closed for alterations. Emergency cases cared for in nurses' dormitory for balance of year.

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TABLE SHOWING AGE, SEX, AND DISEASE OF PATIENTS.

Age	Under 1 year		1-5		5-10		10-20		20-30		30-40		40-50		Over 50		Total		Total
Sex	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Diphtheria	0	0	6	0	6	10	1	1	0	3	0	1	0	1	0	0	13	16	29
Scarlet Fever	0	0	4	5	4	3	6	8	5	2	0	0	0	2	0	0	19	20	39
Measles	0	0	0	0	0	0	1	1	1	2	0	0	0	0	0	0	2	3	5
Mixed Infection	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Anterior Poliomyelitis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1
Tuberculosis	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1
Others	1	2	3	0	0	3	1	0	0	1	0	0	1	0	0	1	6	7	13
Totals	1	2	14	5	10	16	10	10	6	8	1	1	1	3	0	1	43	46	89

OCCUPATION OF PATIENTS.

Infants,	29
Students,	39
Nurses,	2
Laborer,	1
Pianist,	1
Street Railway conductor,	1
Housewife,	5
Bookkeeper,	1
Domestics,	3
Receiving clerk,	1
Baker,	1
Barber,	1
Expressman,	1
Sewing machine operator,	1
Tool maker,	1
Baseball umpire,	1

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LABORATORY WORK.

The laboratory of the Board of Health may fairly be called a clearing house for the diagnostic difficulties of the medical profession as far as it relates to the work carried on in such laboratories. In addition to furnishing positive diagnoses as to the existence of certain diseases the negative results are also important in eliminating these diseases, provided due care is taken in confirming negative results by repeated examinations.

The milk laboratory is connected with the bacteriological laboratory and is under the direction of the City Bacteriologist. A large amount of very satisfactory work has been performed in this laboratory during the year, details of which can be found under Milk and Milk Inspection.

If time permits and facilities are provided it is hoped to take up the work of detecting tubercle bacilli in milk the coming year, in order to form some definite conclusion as to the dangers from bovine tuberculosis.

TABLES SHOWING LABORATORY EXAMINATIONS BY MONTHS.

DIPHTHERIA.

MONTHS.	DIAGNOSIS.		RELEASE.		TOTAL Examinations.
	Positive.	Negative.	Positive.	Negative.	
January,	7	78	3	38	126
February,	10	77	2	19	108
March,	6	62	2	25	95
April,	5	62	0	13	80
May,	8	63	3	9	83
June,	19	28	8	33	88
July,	5	26	2	14	47
August,	7	21	3	23	54
September,	14	16	4	10	44
October,	9	28	3	27	67
November,	16	45	4	23	88
December,	15	73	7	31	126
Totals,	121	574	41	270	1,006

17.8% positives.

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TYPHOID FEVER.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Positive	1	0	2	1	0	4	1	3	0	10	5	1	28
Negative	8	2	1	3	1	3	7	5	7	5	8	0	50
Doubtful	0	2	0	0	0	1	2	2	1	0	0	0	8
Totals	9	4	3	4	1	8	10	10	8	15	13	1	86

32.5% positives.

TUBERCULOSIS.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Positive	5	7	7	8	12	10	13	9	7	4	1	1	84
Negative	23	21	20	22	28	18	14	15	6	10	17	20	214
Totals	28	28	27	30	40	28	27	24	13	14	18	21	298

39%+ positives.

MEDICAL INSPECTION OF SCHOOLS.

The work of medical inspection has been carried along on the same general lines as were outlined in the previous year's report, with routine inspection twice a week during the school year. Special attention is always given to the occurrence of diphtheria and eruptive contagious diseases in the schools. All children remaining away from school beyond two days are examined by the Inspector before they are readmitted. Children recovering from measles, mumps, whooping cough, and chicken pox are only readmitted by the inspector of the school which they attend. Children sick with or excluded from school on account of diphtheria or scarlet fever require a readmittance card from the Board of Health. This arrange-

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ment simplifies matters and results to a certain degree in placing the responsibility for the occurrence of these diseases upon the inspectors. The result of the annual inspection of teeth, tonsils, and adenoids is as follows: There were 12,377 children examined with the following result: Teeth, good condition 5,774, fair condition 3,016, poor condition 3,587; 3,299 children showed enlarged tonsils with adenoid growths in 2,010 cases. In deference to the wishes of the principals of the various schools this inspection will, in the future, be made at the opening of the fall session of the schools.

It is hoped to inaugurate during the coming year a physical examination of all pupils below the high school. This examination will be repeated yearly and recorded on individual cards, so ruled that the physical development of the child during his entire school life can be seen at a glance, as the card will accompany the child when he is promoted. The value of this work is now so well understood that the extra time involved in making these examinations will, no doubt, be gladly granted by the school authorities. As an indication of the importance of this work these cards will enable the teachers, in many instances, to explain the inability of the child to keep up with his class, and will also show variations from the normal for each year of school life. The adoption of the open-air school makes this work especially important as the selection of pupils for these rooms will be materially aided by the records of physical development and it will be essential to make these selections with considerable care. An open-air schoolroom, conducted in the approved manner, is a relatively expensive proposition to maintain, and those who have given the most study to this phase of instruction are reaching the opinion that the open-air room should be reserved entirely for children with tuberculosis in its various forms, and the open-window room utilized for the larger group of children who are below par physically and, therefore, more liable to take on a tuberculous infection. The

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open-window room can be maintained at practically no additional expense and one room in every schoolhouse in the city can easily be converted into an open-window room, so that existing arrangements regarding pupils attending certain schools need not be changed.

Owing to the difference of opinion amongst educators as to whether the work of medical inspection should be under the direction of the Board of Education or Board of Health it is the aim of the Board to develop the work in such manner as will at all times receive the co-operation of the School Department. It is believed, however, that the methods pursued here are producing good results and with the addition of individual health records for every child the work will compare favorably with that carried on in other cities which are in the progressive class. Medical inspection of schools is an important division of the financial investment of human lives referred to in the earlier pages of this report and should receive hearty indorsement by all concerned in the problems of future citizenship, to say nothing of parents who are directly interested in the welfare of their children.

TABULATION OF REPORTS OF MEDICAL INSPECTORS OF SCHOOLS FOR THE YEAR ENDING DECEMBER 31, 1911.

LIST OF DISEASES FOUND IN THE SCHOOLS.

I.—Infectious Diseases.	1910	1911
Diphtheria,	9	3
Scarlet Fever,	2	11
Measles,	53	125
Mumps,	34	202
Whooping Cough,	48	61
Chicken Pox,	49	99
Tuberculosis,	8	2
Influenza,	27	19
Other Diseases,	11	11

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II.—Diseases of Oral and Respiratory Tract.		
Acute Pharyngitis,	385	234
Acute Tonsilitis,	241	318
Chronic Hypertrophic Tonsils,	3,679	3,299
Acute Rhinitis,	70	42
Defective Nasal Breathing,	22	14
Adenoids,	1,716	2,010
Other Diseases,	70	223
Defective Teeth,	6,914	6,603
III.—Diseases of Eye and Ear.		
Acute Otitis Media,	18	21
Chronic Otitis Media,	15	14
Other Diseases of Ear (defective hearing excluded),	19	18
Blepharitis,	19	38
Acute Conjunctivitis,	149	71
Other Diseases of Eye (defective vision excluded),	96	93
IV.—Diseases of the Skin.		
Acne,	28	35
Boils,	56	52
Dermatitis,	119	78
Eczema,	166	163
Erythema,	37	41
Herpes,	299	371
Impetigo Contagiosa,	781	879
Pediculosis,	375	553
Scabies,	137	140
Tinea,	58	100
Other Affections,	342	420
V.—Miscellaneous.		
Abscesses and Ulcers,	156	197
Contusions and Injuries,	235	305
Cardiac Disease,	13	2
Fever,	35	29
Gastric and Intestinal	83	62
Malnutrition,	51	27
Pulmonary Disease,	18	8

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Tubercular Lymph Nodes,	15	15
Other diseases not classified,	442	633

SUMMARY.

Specific and Infectious Diseases,	241	533
Oral and Respiratory Diseases,	6,183	6,140
Diseases of the Ear,	52	53
Diseases of the Eye,	264	202
Diseases of the Skin,	2,398	2,832
Miscellaneous Diseases,	606	645
Unclassified,	442	633
Vaccinations,	965	928
No disease found,	713	583
Special examination teeth, tonsils and adenoids,	11,858	12,377
Number of first examinations,	21,219	20,243
Number of re-examinations,	3,621	3,654
Total number of examinations (including special examinations),	24,840	23,897
Total number sent home,	666	312

LIST OF MEDICAL INSTRUCTORS OF SCHOOLS.

DR. R. S. BENNER, Howard Street and William Street.
DR. W. H. CHAPIN, Central High, Technical High, State Street Grammar, School Street, and East Union Street.
Dr. M. W. HARRINGTON, I. O. Primary and Grammar, Sixteen Acres, and Five Mile Pond.
Dr. J. P. HILLARD, Kensington Avenue, White Street, and Boston Road.
Dr. W. A. HOSLEY, Belmont Avenue and Forest Park.
Dr. G. T. LAMARCHE, St. Joseph, St. Aloysius, I. O., St. Matthews, I. O., Immaculate Conception, I. O.
Dr. L. J. MCCARTHY, Charles Street, Glenwood, Brightwood, Armory Street.
DR. R. B. OBER, Buckingham, Tapley, and Homer Street.
DR. T. F. REARDEN, Sacred Heart, St. Michael, Holy Family, Holy Name.
DR. A. G. RICE, Worthington Street, Chestnut Street, and Lincoln.
DR. H. RITTER, Carew Street, Jefferson Avenue, and Hooker.
DR. E. T. SMITH, South Main Street and Central Street.
DR. C. E. STREET, Strickland, Oak Street, Alden Street, and Eastern Avenue.

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NUISANCES.

The gospel of cleanliness is now being preached by the press, the pulpit, magazines, and individuals, each approaching the subject from a different standpoint, but all are united in looking to health departments for the abatement of nuisances of every sort and description. Many things may justly be placed in the list of nuisances in large communities, which are not directly productive of disease, but where the line is to be drawn in these matters is, at times, a most difficult thing to determine. Dust, manure heaps, foul odors, and refuse accumulations are the chief causes of complaint. It is important that accumulations of garbage, manure, dumping material, and rubbish of all kinds should be prevented, and every individual can do much in this direction by the daily burning of refuse in stoves and furnaces when possible. All these accumulations of dirt and filth become the breeding places of flies and other insects and may become the medium for the transmission of disease if infected material is mixed with these accumulations. Flies, which develop chiefly in manure heaps and garbage, may become the carriers of infection and many instances are now recorded, but it is easily understood that they must have access to infected material in order to become direct agents in transmitting disease. The number of flies present in a given locality is fair evidence of the sanitary conditions of that locality, and the fly nuisance can only be abated by a general cleaning up of all varieties of dirt and rubbish before the onset of the fly season. To what extent disease is transmitted by dirt is not by any means settled, but it may fairly be placed in the nuisance list. The prevention of dirt goes beyond the oiling or sprinkling of streets and is a difficult problem to solve owing to the various sources of production. Drastic regulations concerning the exposure of fruit and food products would be difficult to enforce by boards of health unless a statute prohibiting the improper display of such articles was enacted by the Legislature.

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MILK AND MILK INSPECTION.

The regulations adopted by the department in 1907 in reference to controlling the milk supply and the methods used in carrying out these rules have received much favorable comment during the past year from a great variety of sources. Whatever good results may have been obtained are due in a great measure to an early recognition of the relation which should exist between the producer, the dealer, and the consumer, and a continual effort has been made by the department to render the relation as harmonious as possible.

Any legislation or supervision should take into consideration the fact that it costs the producer one half to one cent per quart more to produce what is now called sanitary milk under regulations similar to those in force in this city than it did before such requirements were considered necessary. This increase of cost of production must be paid to the producer, or he will either give up the business of raising milk or resort to devious ways in evading compliance with the regulations. The great bulk of consumers are demanding sanitary milk and they must pay the increased cost of producing and handling milk in the manner which is necessary to deliver a clean, cold, sanitary product at their doors every day in the year. Any fair-minded dairyman will improve the sanitary conditions of his stables and milk room as well as his methods of handling milk if he can see a margin of profit, but legislation which only increases his financial burden will fail to solve the problem of sanitary milk. This phase of the question has received very little consideration, and much irrelevant matter is being introduced in the arguments for a central control of the milk supply. There has been plenty of legislation directed against the producer. The interests of the consumer might well be advanced by legislation in reference to the large interest controlling the milk supply. Milk is selling in Springfield for eight to ten cents per quart. The producer is receiving four to five

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cents per quart and the difference between these two prices naturally explains the evident signs of prosperity shown by the dealer. Twenty-eight new cow stables have been erected in the district during the year and fifty-two milk rooms with running water and facilities for the proper care of milking utensils provided. Extensive improvements in the methods of handling and bottling milk have been made or are under way by our large dealers, and they are looking to the producer to furnish them a sanitary product for which they are willing to pay the increased price.

This represents very briefly the milk situation in this city, and any town or city in the state can duplicate or improve upon the conditions existing here, and can control its supply of milk at its source by a moderate expenditure of money and well directed energy. A few special features are worthy of mention illustrating the work of the milk inspectors both amongst the storekeepers and in the field with the producers. Ninety-eight per cent of all dairies now have ample provision for storing ice. Low temperature is a most important factor in handling milk and very little milk comes into the city in the warmest weather above 50° F. The sale of milk in bottles is increasing very rapidly; not one of the 400 places selling milk are using the dip tank, with the exception of lunch rooms, and all prefer to sell milk in bottles only irrespective of any ruling which allows the use of other methods. In fact, some of the larger dealers are bottling their entire product and others are making arrangements to do so at an early date. The situation, with reference to bottling milk, is, therefore, very satisfactory to the department.

The danger of tuberculosis from infected milk is being taken up by the department and the inspectors are urging producers to purchase cows which have been tuberculin tested or are guaranteed to be free from tuberculosis. This guarantee adds about $5.00 to the price per cow, but a good many of the

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better class of producers are falling in line with the idea by only adding to their herds cows thus guaranteed. This matter will be pushed along and good results will come in a short time. No milk is now cooled in barnyard watering troughs or other insanitary places. The method of scoring dairies has been changed by adopting the score card based on 60 and 40 points. There has been an apparent lowering of percentages temporarily, but the new card gives more credit to the methods used and will be fully as satisfactory to the producer when understood. The work of sampling, analyzing, and making bacterial counts of milk has been carried on with gratifying results and tables are introduced showing improvements, which are interesting from the deductions to be made and substantiating statements in regard to the sanitary condition of the milk supply as a whole.

Interesting results were obtained regarding the uniform quality of bottled milk. Four hundred and thirty-nine samples were taken from bottled milk; of this number ten samples only were found to be below the required standard. Thirteen hundred and nine samples were taken from wagons. Of this number 114 were below standard. Three hundred samples were taken from the peddling can and 60 were below standard. This work shows that milk in bottles is much more uniform in quality. This is especially apparent in those restaurants where the dip tank is used. One hundred samples taken from these tanks gave 22 below standard whilst in restaurants and lunch rooms, serving milk in individual bottles, milk below standard was never found.

The bacteriological work on milk was carried on during the months of July, August, and September, following the same general plan as in the year previous. The total number of samples taken for the work was 442. The average temperature was 49.1° F. One hundred and nine samples showed a bacterial count of less than 10,000 per cc. and were taken from 10 quart

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cans from 69 dairies with a daily output of 5,650 quarts. Of these 109 samples 33 were taken in July, 47 in August, and 29 in September.

Special attention is called to the records of twenty dairies for 1910 and 1911 as regards temperature and bacterial contents.

SUMMARY OF WORK PERFORMED IN THE DAIRY DIVISION.

Estimated number of quarts sold daily in Springfield,	60,000
Estimated number of quarts sold in city from Massachusetts dairies,	50,000
Estimated number of quarts sold in city from out-of-state dairies,	10,000
Number of licenses issued for sale of milk,	578
Number of licenses and registrations issued for sale of oleomargarine,	17
Number of dairies sending milk to Springfield,	658
Number of Massachusetts dairies,	500
Number of out-of-state dairies,	158
Number of dairy milk houses built during year 1911,	52
Number of dairy barns built during year 1911,	28
Number of inspections made of dairies,	907
Number of inspections made of stores and restaurants,	926
Number of inspections made of milk wagons and rooms,	950
Number of inspections (total),	2,783
Number of milk samples collected from trains,	86
Number of milk samples collected from stores,	328
Number of milk samples collected from wagons,	1,309
Number of milk samples brought to the laboratory,	981
Number of samples analyzed (total),	2,704
Number of samples found above standard (solids 12.15%, fats 3.35%)	2,348
Number of samples found below standard,	435
Number of collected samples below standard,	308
Number of laboratory samples below standard,	127
Number of samples low in solids and fats,	187
Number of samples low in solids,	172
Number of samples low in fats only,	76
Number of milk samples plated for bacterial examination,	934
Number of classified bacterial counts made,	442
Number of microscopic examinations of sediment,	868

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Number of refractions,	225
Number of samples containing added water,	102
Number of samples having bad flavor,	14
Number of samples containing manure,	14
Number of slimy milk samples received,	11
Number from which organism was isolated,	11
Number of samples showing udder infection,	7
Number of samples containing dirt,	9
Number of samples received with complaint of containing preservative (none found),	6
Number of bitter milk samples examined,	4
Number of samples showing presence of blood,	2
Number of human milk samples examined,	2
Number of samples showing skimming,	7
Number of samples showing feeding of molasses,	3
Number of oleomargarine samples examined,	13
Number of butter samples examined,	12
Number of calls for certified milk,	24
Number of calls for baby milk,	127
Number of personal calls at the laboratory for milk information,	1,082

VINEGAR.

Number of inspections of vinegar in stores,	320
Number of vinegar samples examined,	72
Number of vinegar samples found above standard (solids 1.8%, acetic acid, 4.50%),	60
Number of vinegar samples found below standard,	12

Table showing number of bacterial colonies per cc. (15 drops) in milk samples, taken on the streets of Springfield during the months of July, August, and September, 1911. Media used, Standard American Agar, Public Health Association. Period of incubation, 48 hours at 37° F.

		Percentage.
Number of samples with 10,000 and under,	109	24.7
Number of samples between 10,000 and 20,000,	41	9.3
Number of samples between 20,000 and 50,000,	82	18.6
Number of samples between 50,000 and 100,000,	58	13.1
Number of samples between 100,000 and 200,000,	53	12.0

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Number of samples between 200,000 and 500,000,.....	57	12.9
Number of samples between 500,000 and 1,000,000,.....	18	4.0
Number of samples between 1,000,000 and 2,000,000,....	17	3.8
Number of samples between 2,000,000 and 5,000,000,....	5	1.1
Number of samples above 5,000,000,.....	2	0.5
Number of samples taken for this work (total),.....	442	100.0
Number of samples with not more than 10,000,.....	109	24.7
Number of samples with not more than 100,000,.....	290	65.3
Number of samples with not more than 500,000,.....	400	90.6

It will be noted from the above report that 24.7 per cent of the samples taken had a bacterial count within the limit prescribed by most milk commissions for certified milk.

Over 60 per cent of the samples taken had a count of not more than 100,000, and over 90 per cent of all the samples taken had a bacterial count of not more than 500,000, the maximum prescribed by cities where bacterial counts are enforced.

Table comparing bacterial counts and temperatures of samples taken from twenty dairies August 25, 1910, and from the same dairies July 27, 1911. The marked lowering of the bacterial count in 1911 is due chiefly to two things, the lower temperature at which the milk is now held and to the improvement in methods and equipment at these dairies as indicated by their score cards.

The samples were taken from a collecting wagon of a milk dealer as it arrived in Springfield from the dairies.

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	1910.		1911.		
Dairy No.	Temp. ° F.	Count.	Temp. ° F.	Count.	Sample No.
401	64	70,000	46	10,000	1
393	64	20,000	46	370,000	2
395	64	320,000	46	400,000	3
403	64	50,000	46	10,000	4
644	64	460,000	46	140,000	5
518	64	130,000	46	27,000	6
540	64	110,000	46	60,000	7
418	64	10,000	46	50,000	8
542	64	400,000	46	250,000	9
394	64	160,000	46	10,000	10
193	64	2,000,000	46	40,000	11
397	64	6,000,000	46	460,000	12
519	64	40,000	46	30,000	13
406	64	1,200,000	46	10,000	14
391	56	80,000	46	10,000	15
400	56	330,000	46	40,000	16
388	56	70,000	46	40,000	17
390	56	20,000	46	140,000	18
129	56	60,000	46	50,000	19
396	64	10,000	46	460,000	20

Average temperature, 62° F., 1910. Average temperature, 46° F., 1911
Average bacteria, 577,000. Average bacteria, 130,350.

INSPECTION OF MEATS AND PROVISIONS.

The work of the Inspector during the year is tabulated as follows:—

INSPECTIONS.

Cold storage houses,	27
Wholesale meat houses,	165
Wholesale fruit houses,	45
Retail meat markets,	2,416
Retail grocery markets,	2,969
Retail fish markets,	778
Retail fruit markets,	2,147
Meat carts (peddling),	21
Total,	8,568

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The stores and markets, as a rule, were found in good sanitary condition. The proprietors of the various places have been glad to receive suggestions and are carrying them out to the best of their ability. The following meats and fruit products were condemned:—

MEATS.		MEAT PRODUCTS.	
Beef,	876 lbs.	Sausage,	33 lbs.
Pork,	700 "	Frankforts,	31 "
Lamb,	343 "	Bologna,	2 "
Veal,	532 "	Hamburg,	9 "
Liver,	112 "		
Kidney,	18 "		
Bacon,	15 "		

POULTRY.		GROCERIES.	
Geese,	14½ lbs.	Mincemeat,	4 lbs.
Chicken,	79 "	Currants,	3 "
		Crackers,	10 "
FISH,	76 "	Deviled Ham,	2 "

FRUIT.		VEGETABLES.	
Bananas,	80 "	Lettuce,	2 boxes.
Pears,	1 basket	Cauliflower,	6 heads.
		Cabbage,	7 heads.
		Sauerkraut,	1 barrel.

All complaints sent to the Board of Health were investigated and in five cases the complaints were justified and conditions remedied; in the other six instances there was no cause for action being taken.

The inspection work has been carried out on lines similar to those employed by the United States Government in their Meat Inspection Bureau. The work performed has been productive of good results and a general improvement of the sanitary conditions of markets, stores, and other places is

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apparent. The demand for an improvement in the methods of handling and exposing all kinds of food products for sale and their protection from dust, flies, etc., by the public at large, is producing a good effect, and if the consumer would refuse to purchase any articles not properly protected it would materially aid the work of the Inspector.

Respectfully submitted,

GURDON W. GORDON,
THOMAS F. REARDEN,
EDGAR H. GUILD,

Board of Health.

BOARD OF ALDERMEN, January 29, 1912.
Read, accepted, ordered printed, and sent down for concurrence.
E. A. NEWELL, *Clerk.*

COMMON COUNCIL, January 29, 1912.
Read and concurred.
GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, January 30, 1912.
E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., January 31, 1912.
Approved for printing.
EDWARD H. LATHROP, *Mayor.*

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BUILDING DEPARTMENT.

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SECOND ANNUAL REPORT

OF THE

BUILDING DEPARTMENT.

CITY OF SPRINGFIELD, December 31, 1911.

To the Honorable, the City Council of the City of Springfield.

GENTLEMEN:—In compliance with the requirements of the Building Ordinance—Part I, Section 1,—a record of the business of the Building Department is herewith submitted, beginning January 1, and ending December 31, 1911.

When our present Building Ordinance was approved September 1, 1910, Part III, regulating the installation of electric wires and gasfitting,—for good and sufficient reasons,—was omitted. April 10, 1911, additional legislation gave Springfield permission to place electrical installations within buildings, under the control and supervision of the Building Department. While the department was being organized, it was suggested by those in authority, that to write Part III would properly be the work of the Building Commissioner, and that it would be well to rewrite, rearrange, and further revise the Ordinance, so as to strengthen the weak points, include necessary regulations that were not included in the first revision, and add new sections, such as observation and experience would dictate, while the Ordinance was being enforced and applied to actual building operations, to the end that the lives of the people may be protected and danger from destructive fires prevented.

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During the past year the Building Ordinance has been largely rewritten, and revised, and made more inclusive. It has been referred to a committee of seven experts, who have taken it up deliberately, sentence by sentence, and made further corrections and additions. They gave, without compensation, their valuable time and experience, and the revised Ordinance in its present form has received their unanimous approval.

The revised Ordinance has been approved by the City Solicitor, and is now before your Honorable Council for final approval.

There have been several public hearings on the new revision, with very little opposition, and practically all of the opposition has now been withdrawn.

There is much need of the new revision, and a lack of its restraining influence is already seriously retarding the work for which the Building Department was created.

ESTIMATES OF SAFE FLOOR LOADS IN WAREHOUSES, ETC.

In compliance with Part II, Section 18, of the Building Ordinance, seventeen floors in warehouses have been surveyed, and proper notices, giving the safe loads per square foot, have been posted above the floors to which they relate.

ELEVATORS.

The State law, under which the Building Commissioner approves new elevators, remains practically as it was when attention was called to it in the report for last year.

During the year 1911, the construction work and safety devices of twenty-one new elevators have been inspected and approved. Six special examinations of elevators have been made.

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INSPECTION OF HOTELS AND LODGING HOUSES.

In compliance with the Acts of 1908, Chapter 487, this department, during the month of May, 1911, inspected forty-seven (47) hotels and lodging houses, containing a total of two thousand five hundred and one (2,501) rooms, and a detailed report of the condition of each room as to means of escape in case of fire, etc., was sent to the Chief of the Massachusetts District Police.

A copy of this report is on file in the Building Department.

THE TABLES.

Following are tables showing all the building and allied operations, together with the estimated costs of buildings for which permits have been granted during the year from January 1, to December 31, 1911.

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BUILDING PERMITS GRANTED.

From Jan. 1, to Dec. 31, 1911.

	WARDS.								
	1	2	3	4	5	6	7	8	Totals.
Additions,	53	34	38	21	46	37	60	43	332
Alterations,	18	19	58	21	7	8	26	16	173
Tenement houses,	23	4	1	3	4	1	10	3	49
Three family houses,	29	1		2	4		13	22	71
Two family houses,	24	1		3	1	1	85	62	177
Single houses,	10		1	1	4		46	63	125
Factories,	2	2	1	2		1		3	11
Garages,	12		4	8	12	4	39	25	104
Stables,	8	4	3	1	2		1	4	23
Storehouses,	7			2	3		5	4	21
Stores,	11	2	4				2	2	21
Stores and tenement buildings,	7	10			1		3	2	23
Miscellaneous,	7	3	6	3	5	3	12	40	79
Totals,	211	80	116	67	89	55	302	289	1,209

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ESTIMATED COST OF NEW BUILDINGS.

From Jan. 1, to Dec. 31, 1911.

WARD.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
1	$26,000	$83,150	$1,655	$130,075	$49,475	$135,200	$54,000	$95,050	$77,700	$66,200	$163,400	$19,585	$901,490
2	13,300	8,800	11,000	16,000	53,000	64,850	91,700		42,000	57,500	8,100		366,250
3			150,000	36,000	83,600	12,000	9,000	1,325	452,000	20,150	33,700	40,000	837,775
4	43,350	57,825	1,000	127,200	5,150	150	41,600	150	12,700		4,885	6,100	300,110
5	900	4,400	37,500	27,120	32,260	6,700	10,150	21,525	1,075	1,585	13,950	8,225	165,390
6	900			47,000	4,900		2,000	1,000	400	5,350			61,550
7	6,450	46,850	57,950	151,150	169,490	160,000	55,650	41,275	55,100	51,700	49,075	83,500	982,190
8	23,875	33,225	49,300	88,490	36,435	54,260	24,950	71,000	78,325	56,575	58,700	40,250	615,385
Totals	$168,775	$234,250	$308,405	$623,035	$434,310	$433,160	$289,050	$231,325	$719,300	$259,060	$331,810	$197,660	$4,230,140

NOTE:—In addition to the above,—"Verbal Permits" have been given for the erection of 154 buildings costing less than $25.00 each, and amounting—in the aggregate—to $2,788.00.

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ESTIMATED COST OF ADDITIONS AND ALTERATIONS.

From Jan. 1, to Dec. 31, 1911.

WARD.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
1		$1,025	$1,250	$1,785	$6,235	$4,630	$2,175	$4,300	$1,175	$7,475	$2,525	$275	$32,850
2	$4,140	56,290	4,265	3,565	1,235	592	2,580	1,700	17,255	6,100	1,350	19,300	118,372
3	56,400	64,500	11,300	22,000	29,390	19,000	14,500	61,800	4,930	15,125	9,965	3,950	312,860
4	5,850	725	200	10,500	10,300	2,275	850	6,930	2,625	1,750	880	3,375	46,260
5	200		1,375	3,425	3,790	2,350	1,485	9,352	8,010	80	100	400	30,567
6	550	200	2,550	7,025	5,050	2,750	625	110	750	1,535	800	1,775	23,720
7	1,425	2,325	2,285	4,025	6,599	27,555	5,415	4,190	1,275	2,225	300	1,700	59,319
8	725	600	2,575	6,810	2,200	1,285	1,875	2,150	19,565	1,400	1,165	1,525	41,875
Totals	$69,290	$125,665	$25,800	$59,135	$64,799	$60,437	$29,505	$90,532	$55,585	$35,690	$17,085	$32,300	$665,823

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VIOLATIONS NOTED AND CORRECTED.

Building without permit,	75
Dangerous buildings,	4
Dangerous chimneys,	12
Defective foundations,	2
Defective furnace or smokepipe,	6
Defective construction,	2
Flue-lining omitted,	16
No shield over heater,	34
Omission of fire-stops,	62
Steam or furnace pipes touching woodwork,	19
Woodwork touching chimney,	33
Miscellaneous,	19
Total,	284

CLASSIFICATION OF BUILDINGS.

	NUMBER.		COST.	
	Wood.	Brick.	Wood.	Brick.
Factories,	3	8	$14,000	$174,000
Churches,	2	1	20,000	35,000
Schools,		1		70,000
Stables,	14	9	14,115	57,500
Garages,	80	24	41,450	14,915
Storehouses,	14	7	6,712	58,600
Stores and offices,		1		40,000
Stores and tenements,	5	18	32,800	347,600
Stores,	17	4	17,730	154,325
Office building,	2	2	20,125	465,000
Laundries,		2		50,000
Fire stations,		1		57,000
One family,	121	4	402,200	40,000
Two families,	176	1	891,400	5,000
Three families,	69	2	282,700	14,000
Six families,	24	3	169,800	58,500
Apartments,		22		561,400
Alterations,	125	48	83,924	153,875
Additions,	297	35	76,282	94,410
Miscellaneous,	53	14	296,102	78,286
Totals,	1,002	207	$2,369,340	$2,529,411

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INSPECTIONS BY THE BUILDING DEPARTMENT.

Table showing number of inspections each month, and for what purpose.

	New Buildings.	Alterations.	Special.	Fires.	Total.
January,	150	38	8	7	203
February,	167	75	1	12	255
March,	255	77	12	4	348
April,	219	60	2	5	286
May,	227	53	72	6	358
June,	304	115	8		427
July,	253	117	2	5	377
August,	306	99	1	3	409
September,	295	80	6	3	384
October,	314	103	23	1	441
November,	294	82	33	6	415
December,	266	74	11	4	355
Totals,	3,050	973	179	56	4,258

NUMBER OF STEAM BOILERS INSTALLED.

From Jan. 1, to Dec. 31, 1911.

	WARDS.								
	1	2	3	4	5	6	7	8	Totals.
January,			4				25	4	33
February,			1				10		11
March,									
April,	2	1	1	1			10		15
May,	2	4	1	2	2	3	13	23	50
June,	2				4		8	3	17
July,	3		1				5	2	11
August,	4	1	4	2	4	1	26	6	48
September,	6	2	5	2	1	2	33	6	57
October,	3	2	1	5	1		13	16	41
November,	2	1		1			3	4	11
December,	1	3	2	4	2	3	7	2	24
Totals,	25	14	20	17	14	9	153	66	318

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NUMBER OF HEATING FURNACES INSTALLED.

From Jan. 1, to Dec. 31, 1911.

	WARDS.								
	1	2	3	4	5	6	7	8	Totals.
January,	8	2		6		1	12	16	45
February,			3				11		14
March,	8			1			8	7	19
April,	9						6	10	25
May,	2		1		1		6	1	11
June,	10			2			27	8	47
July,	9			1			6		16
August,	4			2	1	1	9	5	22
September,	30			3	1	4	10	23	71
October,	2	2				1	4	4	13
November,	18	4		5	5		13	9	54
December,	10	3			2		4	9	28
Totals,	95	11	4	20	10	7	116	92	365

NOTE:—Permits have been granted for the erection of six bake ovens.

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PLUMBING.

During the twelve months, five thousand two hundred (5,200) inspections of plumbing have been made. Approximately three hundred and fifty (350) of these were special investigations and inspections of the entire plumbing systems in the buildings included in the territory between State street and the Boston & Albany Railroad on the south and north, and Dwight and Water streets on the east and west. Many defects were discovered and have been remedied. These investigations will be resumed, as opportunity offers, until the present plumbing in all buildings in the congested district has been examined.

Following are tables showing the number of permits, inspections and violations, also the number and kind of fixtures installed during the year 1911.

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PLUMBING.

Table showing number of Permits, Inspections, and Violations—1911.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct	Nov.	Dec.	Totals.
Permits for work in new buildings,	40	36	28	38	51	62	51	46	34	48	37	49	526
Permits for work in old buildings,	47	46	63	69	72	70	53	73	74	65	51	36	726
Regular inspections,	318	313	406	401	437	434	356	447	447	461	439	339	4,828
Special investigations,	9	34	69	39	28	29	23	35	28	25	28	24	372
Violations,	21	13	14	17	8	6	5	7	8	14	10	5	128

Table showing number of Fixtures installed during 1911.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Water closets,	142	153	128	194	179	315	160	201	167	241	136	207	2,223
Lavatories,	128	233	135	158	158	300	143	124	200	221	108	200	2,108
Baths,	111	106	84	121	139	240	125	144	117	206	111	173	1,677
Laundry trays,	106	92	64	121	109	216	114	116	84	190	92	160	1,464
Sinks,	129	111	90	132	154	258	128	136	118	209	106	189	1,760
Urinals,	2	2	2	3	3		1	5	1	2	1	2	24
Totals,	618	697	503	629	742	1,329	671	726	687	1,069	554	931	9,256

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PROSECUTIONS.

In June a complaint, to the effect that a journeyman plumber was employing unlawfully another journeyman as his assistant, was made to this department, and action was taken by making a complaint to the Clerk of the Police Court. A warrant was issued and a hearing given.

The Court decided that the defendant was not an employer but a partner, and the case was dismissed.

The moral effect of this decision was probably more salutary than any reasonable fine would have been.

In conclusion, I wish to thank all members of the City Government for their courteous treatment, and to express my appreciation for the assistance given by the members of the Police and Fire Departments during the year.

Respectfully,

FRED W. LUMIS,

Building Commissioner.

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BOARD OF ALDERMEN, January 8, 1912.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, January 8, 1912.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, January 9, 1912.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., January 9, 1912.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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REPORT OF THE

Municipal Building Commission.

SPRINGFIELD, MASS., December 13, 1911.

To His Honor, the Mayor, and City Council of Springfield:—

In accordance with the usual custom at this season of the year, the Municipal Building Commission herewith submits its fifth annual report. This report briefly covers the record of the past twelve months.

There have been seventeen regular meetings of the Commission during the year, and at many other times inspection of the work and its progress has occupied the attention of its members.

After closing down about December 5th, 1910, little work was installed during the cold weather, or until April 1st, 1911. From the opening of the spring the contractor has resumed his duties, and without interruption the work has been steadily pushed along, and good progress made on this important undertaking.

At the present time the plaster work in the Auditorium is about completed, except for the richly ornamented proscenium arch over the stage. All the plaster work is much more elaborate and ornamental than was at first contemplated, and when properly painted and decorated will be very satisfactory. The Botticino marble wainscot and Tennessee marble floor in the large lobby are done. No woodwork has yet been put in, but the heat is rapidly drying out the building, and the side walls of the reception hall over the lobby and the woodwork about the stage can be started before long. The large exhibition space or floor below the main Auditorium

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meets with favorable comment, and we believe will be much used. The structural portion of the Tower was completed August 15th, 1911, except for the glass globe, which, owing to the possibility of sudden cold weather coming on and the danger attending its erection, cannot now be raised till the spring. The plunger shaft for the Tower elevator has reached the extreme depth of 212 feet, and is said to be the deepest plunger in New England. Most satisfactory has been the rapid and skillful manner in which the A. E. Stephens Company have pushed the work on the Office Building, and had the site for this unit of the Group been available August 1st, as was expected, the roof of this building would undoubtedly be on.

On April 2d, 1911, at 2 A. M., an unsuccessful attempt was made to wreck the Tower by the use of dynamite. Fortunately the damage was slight, the chief result being unusual publicity of Springfield and its campanile the country over.

Twice during the year when Prof. Warren P. Laird happened in Springfield on other business, he has given us of his time and counsel without cost. On April 21st, 1911, contracts for the erection of a central heating plant were awarded to the A. E. Stephens Co., general contractor, for $46,495; George H. McClean Co., heating, $9,700; the M. B. Foster Co., electrical, $10,500; Fitzgibbons, boilers, $7,305; Otis Elevator Co., $1,-880; commissions, $3,847.39; changes, $3,663.65; balance unexpended, $4,608.96. Total appropriation, $88,000. This plant is now running and furnishing heat for the Police and Fire Building Headquarters, and such additional heat as is needed in the Auditorium, and two of its three boilers are in use. October 18th, 1911, samples of hardware having been submitted by four leading makers, an award was made through the general contractor to the P. & F. Corbin Company.

In compliance with a recent request of the Finance Committee, we have made up a statement (a copy of which is appended), showing estimates of the money needed for the

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completion of the buildings, considering especially the use of better interior finish in the Office Building and the furnishings and fixtures for the entire Group. We would recall to your mind that the bill enacted by the Legislature granted Springfield an original appropriation of $1,000,000 for construction purposes only.

We have not any report or recommendations to make on the purchase of land to the west of the Group. We understand the Finance Committee are themselves taking such action on this question as they deem advisable.

As you have already been informed through previous reports, the size or bulk of the buildings was largely determined by the demands for floor space needed by the various City Departments to be located in the Office Building. In order to maintain this size and to preserve in its entirety the beauties of the exterior architectural design and let the contract for construction within the $1,000,000, it was necessary to eliminate the finer finishes, such as marble wainscot and marble floors, mahogany or oak finish for the side walls of the reception hall in the Auditorium and the Aldermanic and Council Chambers in the Office Building, bronze doors, ornamental painting and decorating, all of which are generally to be found in the interior finish of monumental buildings of this character.

The purpose of the Commission has been to secure without change or alteration of the exterior, what it believes to be a most notable and ambitious architectural Group for Springfield. From the start of this enterprise the Commission has consistently and steadily advised the use of those materials which are both durable, sanitary and in the end the cheapest, and as used in the finish of all first-class modern fireproof buildings. The essentials, determined, viz., architectural design secured and size of buildings maintained, and with the best finish allowed within the original appropriation; it then became the duty of the Commission to advise the Council from

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time to time as the work progressed and the recommendations could be intelligently made, of desirable changes, which, if the money could be provided, would give better and more satisfactory results. Such changes cannot often or wisely be determined at the beginning of a work of this magnitude.

Possibly, having actually let the contracts, even if the interior finishes were modified, we should have been content; but believing that if a thing is worth doing it is worth doing well, and even at the risk of being misunderstood, we have gone ahead and urged extra appropriations, convinced, that when the final judgment of the taxpayers is pronounced, it will be favorable. Since awarding the original contract to the A. E. Stephens Company, almost all the important extras and additions have been approved and accepted by the authority of the Council.

For the Auditorium you have already accepted, approved, and ordered at an extra cost Kalamein bronze doors, marble floor and wainscot in the entrance lobby, mahogany side walls in the reception hall, and have provided for same. The painting and decorating of the white plastered walls and ceilings throughout this building is the only item of considerable importance in the construction account not yet provided for. If this painting and decorating is decided upon it will very materially improve the appearance of the interior of the Auditorium.

Should you wish to finish the Office Building with as good materials as those in the Auditorium you will find figures for certain changes as submitted to the Finance Committee, and now to the Council, attached to this report for your consideration. These changes require a large additional outlay of money, but would greatly improve the interior finish of the Office Building and add much to its durability and fitness.

Even without the additional appropriations more work has actually been done than was originally considered when the contract for construction was let, and we believe that a

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close inspection of the work will satisfy the most critical, and that when the buildings are completed, if the materials used and workmanship are what are called for in buildings of this character, few people will be found who will criticise the large additional expenditure.

We assume that you have in mind going to the Legislature with a bill to provide for the furnishings and fixtures of the Group, and if such is your intention we would suggest that you consider the importance of early action.

Respectfully submitted,

GEORGE DWIGHT PRATT,
W. H. WESSON,
WILLIAM G. McKECHNIE,
J. FRANK DRAKE,
HENRY LASKER,
JOHN G. MAXFIELD,

The Municipal Building Commission.

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BOARD OF ALDERMEN, December 18, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 18, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 19, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 20, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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SUMMARY.

APPROPRIATIONS FOR MUNICIPAL GROUP.

Construction Account.

To complete Auditorium and Tower—Schedule A,	$60,000 00	
Immediate Necessities for Office Building—Schedule B,	45,000 00	
For Office Building in addition to Immediate Necessities—Schedule C,	193,450 00	
Miscellaneous Items—Schedule D,	26,550 00	
		$325,000 00

Furniture and Fixtures Account.

Office Building,	$100,000 00	
Auditorium, Tower, and Terraces,	100,000 00	
		200,000 00
Grand total,		$525,000 00

December 18, 1911.

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SCHEDULE A.

EXTRAS REQUIRED FOR MUNICIPAL GROUP.

To Complete Auditorium and Tower.

Electric:

1—Manhole in connection with Underground System,.....	$95 00
2—Outlets and Switch in Reception Room,.....	80 00
3—Vacuum Cleaner Pipe extended in Tower,.....	70 00
4—Extra Outlets for lights at rear of Tower,.....	75 00

Heating:

5—Changes in Heating and Ventilating Apparatus,.....	600 00

General Contract:

6—Bronze and Iron Saddles for entrance and exit doors of Auditorium and Tower,.....	400 00
7—Decorative Register Front,.....	300 00
8—Finishing Floor of terrace over passageway,.....	500 00
9—Drain Pipe from stage lift,.....	89 00
10—Changes in checking rooms,.....	250 00
11—Doors and Vestibules at rear of Tower,	378 00
12—Change in marble stairs of Auditorium,.....	726 00
13—Painting Cement Floors in Auditorium and passage,.....	3,500 00
14—Extra Construction Work, caused by more lavatories, toilets, service rooms, and kitchens,.....	2,412 00
15—Marble and Tile Work in added toilets, and lavatories and changes in original toilets,.....	2,947 00
Amount carried forward,.....	$12,422 00

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Amount brought forward,.....	$12,422 00	
16—Plastering Soffits on 8 side stairways,.	2,000 00	
17—Painting and Decorating in Auditorium and passageway,.....	23,000 00	
18—Insulating Floor over cold air passage,	100 00	
19—Waiting Room in passageway between Tower and Auditorium,.....	1,000 00	
20—Insulation for elevator pipes in cold air space,.....	300 00	
21—Copper Covering of terra cotta pediment of Auditorium,.....	400 00	
22—Doors (2) between Tower and passageway,.....	250 00	
23—Iron Railing rear of passageway,....	500 00	
24—Finish in lower portion of Tower, and at first and second observation stand rooms; painting floors, side walls, ceilings, and stairways of Tower,...	8,000 00	
25—Extra Lighting on Tower,.....	1,475 00	
26—Commissions to architects and engineers,.....	2,950 00	
27—Contingencies,.....	7,603 00	
		$60,000 00

December 18, 1911.

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SCHEDULE B.

EXTRAS REQUIRED FOR MUNICIPAL GROUP.

IMMEDIATE NECESSITIES FOR OFFICE BUILDING.

Plumbing:		
1—Changes in public toilets, additional lavatories, etc.,	$600 00	
Electric:		
2—Telephone Conduit,	700 00	
Heating:		
3—Ventilating System restored,	6,000 00	
General Contract:		
4—Furring, Lathing, and Plastering over ducts in restored Ventilating System,	1,850 00	
5—Bronze Door, and Vestibule Construction and Saddle,	1,500 00	
6—Revolving Vestibule Door, Hood, etc.,	1,900 00	
7—Sealer of Weights and Measures Quarters in passageway,	1,000 00	
8—Finishing Fourth Floor,	17,100 00	
9—Plumbing, Heating and Electrical Work, fourth floor,	6,600 00	
10—Extra Footings,	316 00	
11—Kalamein Iron Doors, side and rear,	400 00	
12—Vestibule, side and rear entrances,	600 00	
13—Office Expenses,	1,700 00	
14—Commissions to architects and engineers,	2,800 00	
15—Contingencies,	1,934 00	
		$45,000 00

December 18, 1911.

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SCHEDULE C.

EXTRAS REQUIRED FOR MUNICIPAL GROUP.

Office Building.

In addition to Immediate Necessities contained in Schedule B:—

Heating, Plumbing, and Electrical Contingencies,	$9,000 00	
Mahogany Woodwork in Aldermanic and Councilmanic Chambers and in passageway between same,	14,500 00	
Mahogany Woodwork in Mayor's offices,	2,000 00	
Painting and Decorating,	21,000 00	
Plate Glass in court windows,	480 00	
Painting Cement and Granolithic Floors,	500 00	
Chair Rails,	3,000 00	
Ornamental Plaster Work,	9,000 00	
Bronze Railing for main stairway, ground floor to third floor inclusive,	5,000 00	
Marble Wainscot and Treads on Pynchon street stairway,	5,500 00	
Marble Wainscoting in corridors on ground, first, second, and third floors,	21,700 00	
Marble Walls, entrance lobby,	11,800 00	
Marble Walls, front hall, first story,	10,700 00	
Marble Walls, front hall, second story,	10,020 00	
Marble Floor, front hall, first story,	2,000 00	
Marble Floor, front hall, second story,	1,980 00	
Marble Mosaic Borders and Cross Strips on floors in all corridors,	1,500 00	
Marble Stairs, main stairway, ground floor to third floor inclusive,	17,900 00	
Marble Walls of stair wells—full height—ground floor to third floor inclusive,	10,000 00	
Office Expenses, including Clerk of Works' salary,	6,000 00	
Commissions to architects and engineers,	9,640 00	
Contingencies,	20,230 00	
		$193,450 00

December 18, 1911.

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SCHEDULE D.

EXTRAS REQUIRED FOR MUNICIPAL GROUP.

MISCELLANEOUS ITEMS.

Tile laid in pattern in terrace, front of Office Building, Tower, and Auditorium,.....	$6,500 00	
Concrete Driveway and Granite Curbing, in court opening on to Pynchon street,.....	3,450 00	
Iron Ore Tailings in granolithic walks, Tower, passageway, and office building,.....	500 00	
Curbing on eastern boundary of lot,.....	800 00	
Reinforced Slab and Grating over area way next to G. A. R. Building,.....	300 00	
Clock and Bell,.....	5,000 00	
Contingencies,.....	10,000 00	
		$26,550 00

December 18, 1911.

SCHEDULE E.

FURNITURE AND FIXTURES.

AUDITORIUM, TOWER, AND TERRACES.

Fixtures, Electric, Auditorium,.....	$25,000 00	
Fixtures, Electric, Tower,.....	6,000 00	
Fixtures, Electric, Terraces,.....	10,000 00	
Chairs for Auditorium proper, including parquet, balcony, and gallery,.....	35,000 00	
Other Furnishings,.....	20,000 00	
Contingencies,.....	4,000 00	
		$100,000 00

OFFICE BUILDING.

Fixtures, Electric,.....	$20,000 00	
Furnishings for offices,.....	60,000 00	
Metal Filing Cases in vaults,.....	15,000 00	
Contingencies,.....	5,000 00	
		100,000 00
		$200,000 00

December 18, 1911.

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CITY SOLICITOR.

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REPORT OF THE

CITY SOLICITOR.

City Council of City of Springfield.

GENTLEMEN:—I herewith respectfully submit a report of the business of the Law Department for the year 1911.

December, 1911, when the last report was presented, there were pending for and against the City 82 cases. During the present year 17 new cases have been brought in the Superior Court for Hampden County and three cases in the Police Court, making a total of 20 cases. These with the cases pending at the beginning of the year total 102. During the year 40 cases have been disposed of, 10 by trial and 30 in settlement, leaving a balance of 62, of which 58 are pending in the Superior Court for Hampden County, one in the Superior Court for Suffolk County, one in the County Commissioners' Court for Hampden County, and two in the Police Court for the City of Springfield.

Gratifying progress has been made in the disposal of petitions for land damages resulting from the Little River takings. Very few of these cases are now pending. A large proportion of the pending cases are suits for water damages brought by owners of power rights and privileges on Little River and result from the diversion of the water of that stream for the City's water works system. Many of this class of cases are in duplicate because of premature suits by the petitioning owners. During the year 1912 a large number of these cases should be disposed of either by trial or settlement and thereafter the number of suits pending against the City will be normal.

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Rendering opinions, attendance on committees and boards, and the construction of written contracts have made up the routine business of the department for the year.

Respectfully submitted,

JAMES L. DOHERTY,

City Solicitor.

December 27, 1911.

BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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PARK COMMISSIONERS.

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DEPARTMENT OF PUBLIC PARKS.

COMMISSIONERS' REPORT FOR 1911.

To His Honor, the Mayor, and the City Council of the City of Springfield, Massachusetts:—

As required by the Revised Laws of the Commonwealth of Massachusetts of 1902, Chapter 28, Section 13, entitled "Of Public Parks, Playgrounds and Public Domain," the Board of Park Commissioners of the City of Springfield have the honor to submit their twenty-ninth (29th) annual report for the year ending November 30, 1911.

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BOARD OF

PARK COMMISSIONERS,

SPRINGFIELD, MASSACHUSETTS.

(Organized September 29, 1883.)

FOR 1911.

NAME.	APPOINTED.	TERM EXPIRES.
Daniel J. Marsh,	1883	May 1, 1912
Theodor R. Geisel,	1909	May 1, 1913
Nathan D. Bill,	1899	May 1, 1914
Everett H. Barney,	1890	May 1, 1915
Andrew J. Flanagan,	1911	May 1, 1916

COMMISSIONERS OF PREVIOUS YEARS.

NAME.	APPOINTED.	RETIRED.
*John Olmsted,	1883	1886
*Orick H. Greenleaf,	1883	1896
Walter H. Wesson,	1883	1890
*John D. McKnight,	1883	1890
*John E. Taylor,	1886	1892
Frederick Harris,	1890	1891
William F. Callender,	1891	1896
*James Kirkham,	1892	1893
Edward S. Bradford,	1893	1899
Azel A. Packard,	1896	1898
Charles E. Ladd,	1896	1901
Robert O. Morris,	1898	1901
Herman Buchholz,	1901	1909
William E. Wright,	1901	1911

Springfield, Mass., December, 1911.

Charles E. Ladd, *Secretary.*

*Deceased.

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REGULAR EMPLOYEES.

GEO. N. MERRILL, *Consulting Engineer.*
CHARLES E. LADD, *Superintendent.*
13 Beech Street.

CHARLES P. NELSON,	Foreman,	142 State street.
WALTER E. WHEELDEN,	Foreman,	302 Orange street.
WILLIAM J. RYAN,	Foreman,	88 Commonwealth avenue.
ANSEL G. CARLETON,	Clerk,	128 Oakland street.
JAMES B. COSTELLO,	Policeman,	12 Ormond street.
NELSON C. NAISH,	Policeman,	124 White street.
EDWARD J. COURTNEY,	Policeman,	547 Dickinson street.
J. ALDEN DAVIS,	Florist,	36 Groveland avenue.
HARTWELL HOSLEY,	Caretaker,	Pecousic.
EDWARD B. LITTLE,	Domestic animals,	25 Pomona st.
WILLIAM D. PEASE,	Birds and fowls,	Plumtree road.
I. D. DAVIS,	Chauffeur,	15 Rutland street.
STETSON G. COTTON,	Teamster,	19 Lawndale street.
JOHN KELLIHER,	Teamster,	27 Groveland street.
J. C. PRENTICE,	Teamster,	49 Vine street.
GEORGE N. BLISS,	Teamster,	62 Alden street.
W. A. SHAW,	Assistant,	25 Crystal avenue.
L. B. ROBERTS,	Assistant,	328 Hancock street.
A. W. HURD,	Assistant,	90 Union street.
GEORGE W. WELLS,	Assistant,	27 Groveland street.
A. H. MCINTIRE,	Assistant,	102 Hickory street.
O. LARSON,	Assistant,	508 Central street.
ASA TREAT,	Assistant,	27 Groveland street.
C. J. STAPLES,	Assistant,	93 Marble street.
PASQUALE MASTRONI,	Assistant,	Banks avenue.
CHARLES COSTELLO,	Assistant,	Water street.
J. CUNNINGHAM,	Assistant,	Armory street.
DAVID NELSON,	Assistant,	20 Worcester avenue.
A. E. PAGE,	Assistant,	Plumtree road.

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FINANCIAL STATEMENT.

DECEMBER 1, 1911.

RECEIPTS.

Balance from 1910,	$1,338 86	
Appropriation, 1911,	49,000 00	
Sundry sales, milk, etc.,	1,038 29	
Rent,	551 00	
Ice for drinking fountains,	229 84	
Ice privilege, Van Horn Reservoir,	200 00	
Highway Department, rent of mixer,	33 00	
Total,		$52,390 99

EXPENDITURES.

On account of small grounds:—

Maintenance,	$3,795 50	
Van Horn Reservoir Park,	1,225 00	
Winchester Square,	825 40	
Merrick Terrace,	745 50	
Trees, walks, fountains, etc.,	127 40	
		$6,718 80

On account of Forest Park:—

Maintenance,	$31,271 90	
Tools, fixtures, etc.,	6,741 70	
Macadam roads, etc.,	2,760 50	
Buildings, etc.,	1,540 25	
Amounts carried forward,	$42,314 35	$6,718 80

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Amounts brought forward, . .	$42,314 35	$6,718 80
Drains and pipes, etc., ...	890 15	
Grading and turfing, ...	575 80	
Settees, etc., ...	224 28	
		44,004 58
Balance to 1912, ...		1,667 61
Total, ...		$52,390 99

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COURT SQUARE EXTENSION.

RECEIPTS.

Balance from 1910,	$42,289 66	
Interest, etc.,	1,050 55	
		$43,340 21

EXPENDITURES.

Curbing, freight, etc.,	$680 90	
Labor,	77 34	
Water rents,	12 00	
Lumber,	3 85	
	$774 09	
Balance to 1912,	42,566 12	
Total,		$43,340 21

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GERRISH PARK.

RECEIPTS.

Balance from 1910, ...	$844 81	
		$844 81

EXPENDITURES.

Labor, ...	$5 37	
Balance to 1912, ...	839 44	
		$844 81

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DRINKING FOUNTAINS.

RECEIPTS.

Appropriation, 1911, ...	$900 00

EXPENDITURES.

Mott Iron Works, fountains, . . .	$401 96	
Park Department, ice, ...	229 84	
W. J. Hyland, nozzles, etc., ...	118 03	
E. H. Gibbs Ice Co., ice, ...	90 01	
Burger & Taft, ice, ...	47 20	
Freight, etc., ...	12 96	
		$900 00

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PLAYGROUNDS AND SWIMMING POOL.

RECEIPTS.

Appropriation, 1911,	$8,300 00	
Receipts,	341 54	
Total,		$8,641 54

EXPENDITURES.

Supervisor, instructors, and labor,	$6,010 35	
Alling Rubber Co., supplies,	735 80	
Narragansett Machine Co., fittings,	200 66	
E. S. Decker, lumber,	168 07	
O. C. Alderman, hardware,	124 52	
Hitchcock Supply Co., pipe, etc.,	122 64	
Burgin Bros., canvas,	116 75	
T. Shea, cement,	62 80	
Geo. N. Holden, repairs,	58 50	
School Department, broken windows,	56 36	
Milton Bradley Co., supplies,	42 84	
Forbes & Wallace, supplies,	40 12	
Mrs. S. Gokey, rent,	40 00	
Johnson's Bookstore, supplies,	32 44	
Meekins, Packard & Wheat, supplies,	14 82	
Sundry accounts,	277 44	
	$8,104 11	
Unexpended balance,	537 43	
Total,		$8,641 54

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FOREST PARK BUILDING ACCOUNT.

RECEIPTS.

Appropriation, ...		$36,000 00

EXPENDITURES.

E. T. Davis & Son, on contract, . .	$26,024 75	
Kirkham & Parlett, fees, ...	1,000 00	
Est. Geo. R. Pyne, preliminary plans,	113 80	
Sundry charges, ...	25 89	
	$27,164 44	
Unexpended balance, ...	8,835 56	
Total, ...		$36,000 00

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PARK COMMISSIONERS' REPORT.

SPRINGFIELD, MASS.

The Board of Park Commissioners was organized for the year with Daniel J. Marsh, president, and Charles E. Ladd, secretary, the members of the Board being Daniel J. Marsh, Everett H. Barney, Nathan D. Bill, Theodor R. Geisel, and Andrew J. Flanagan.

The year 1911 has been an unusually busy one in this department, and many improvements and changes have been made. The erection of two new buildings at Forest Park, the laying out of a new road at the easterly end of the park leading from Dickinson street, the much-needed changes and improvements on the main entrance drive leading from Sumner avenue by filling and widening out the present parkway, the relaying-out and changes at Winchester Square, and the improvements at Merrick terrace, are some of the most important.

About the middle of January the main building at Forest Park, used for various purposes, was partially destroyed by fire, but fortunately the loss was confined principally to the building and part of the contents, such as hay, straw, and grain. The horses, birds, and animals were all saved.

This loss made it necessary for new quarters, and after carefully considering the needs it was decided to build two independent buildings, one an administration and menagerie building, the other a stable. Plans and specifications were drawn and submitted by Kirkham & Parlett, and an appropriation of thirty-six thousand dollars ($36,000) was made for their erection. Bids were submitted, and E. T. Davis & Son being

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the lowest bidders, they were awarded the contract. Owing to an unusually hot spell of weather in the summer, later the rainy weather, and the difficulty in securing the iron work for the cages, there has been much delay in completing the administration building. The stable was completed and occupied by the middle of November, and fully and satisfactorily meets the purposes for which it was built.

These buildings are plain and substantial, built of brick, concrete, and iron, thoroughly up-to-date, practically fireproof, and will meet the needs for many years to come.

By a recent act of the legislature which gives this Board permission, an exchange of land has been made with William H. Dexter, whereby a new road leading from Dickinson street in a westerly and southerly direction to a point near the buildings has been laid out. The laying out of this roadway, owned by the city and controlled by this Board, not only makes an established boundary to Forest Park on the east, but opens up for development a large tract of valuable land for building purposes, which will yield a considerable revenue to the city. This road is to be known as "Trafton Road," in honor of one of Springfield's early pastors.

The erection of the new City Library building on State street necessitated the regrading and changes in the walks at Merrick terrace. This work has been done, and not only adds to the convenience of the public who have occasion to use this park, but greatly improves this section of the city.

Winchester Square, so badly in need of improvement, has been carefully relaid-out. This square has been regraded and turfed, new walks laid out, the drinking fountain relocated to accommodate the public, and the old and partially dead trees removed. With the planting of a few trees and shrubs in the spring, the appearance of this square will be greatly improved.

Plans are nearly completed for the laying out of Court

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Square Extension, which will necessitate some changes in Court Square in order to harmonize with the new lay-out.

The moving of the Municipal Group to the west, as well as the erection of the new fire headquarters on Court street to accommodate the fire department, demonstrates the wisdom of delay in carrying out the proposed improvements.

Few of our citizens realize the great possibilities for an attractive natural park at the Van Horn Reservoir property. Here beautiful ravines, thickly wooded sections, and picturesque bodies of water all tend to furnish the requirements of a beautiful natural park. Already about one-half mile of road has been laid out, drains laid where needed, and much of the dead wood trimmed out. A liberal appropriation for the next few years for the further development of this park will so improve this section of the city for building purposes that the increase of revenue to the city will more than offset the expenditure. Increased valuation of property in the Forest Park section justifies this statement.

During the year thirteen well-equipped playgrounds and one swimming pool have been in operation, and from the very large attendance and the interest manifested, we are able to report a most satisfactory year. The feeling in certain quarters that Springfield is not doing as much in this work as it should, is so misleading as to need but passing attention. A recent report to the City Council suggested a special commission for playgrounds and endeavored to prove its claim for such a statement by citing certain cities where the playgrounds are under such management. No city referred to in that report is doing what Springfield is doing, nor as well. One of the cities in particular that was referred to has nearly as many children of playground age as Springfield has, yet under this special commission conducts only four playgrounds, with an insufficient amount of the crudest kind of apparatus. These grounds are opened to the children from 1.30 P. M. until 5 P. M., only five

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days each week, being closed or without instructors on Saturdays; while many of the instructors have had absolutely no training or experience in playground work.

Springfield playgrounds are open six days each week from 9 A. M. until 12 M., and from 2 P. M. until 5 P. M., while most of the larger ones are kept open until dark. The apparatus on these grounds is of the latest and most approved kind, and in almost every case the instructors, both men and women, are thoroughly experienced in this particular line of work. A comparison with nearly all of the cities of the country places Springfield among the foremost in playground activities.

Notwithstanding this very satisfactory condition, we shall report at a later date recommending additional playgrounds for some of the more congested sections of our city.

The total daily average attendance on our playgrounds has been about 4,000, while the total attendance for the season amounts to nearly 240,000. Among the most popular games and plays indulged in the past year have been folk dancing, circle games for girls, volley ball, baseball, football, quoits, basketball, tennis, playground ball and kite flying, while the industrial work included instruction in sewing, knitting, embroidery, crocheting, millinery, basketry, raffia work, rope splicing, and knot tying. The industrial work proved very interesting to the children, and many useful and ornamental articles were made by them. In many instances this particular line of instruction reached beyond the playgrounds to the homes, where the mother was taught by the child in the art of making useful articles for the adornment of the home.

Too much credit cannot be given to Mr. A. E. Metzdorf and his corps of able instructors for these very satisfactory results.

To the Indian Orchard Company for the free use of a tract of land at Indian Orchard for a playground, and also to the directors of the International Y. M. C. A. Training School for

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the use of their former athletic field on Alden street, we extend our hearty thanks.

DANIEL J. MARSH,
THEO. R. GEISEL,
EVERETT H. BARNEY,
ANDREW J. FLANAGAN,
Board of Park Commissioners.

CHARLES E. LADD, *Secretary.*

BOARD OF ALDERMEN, December 28, 1911.
Read, accepted, ordered printed, and sent down for concurrence.
E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.
Read and concurred.
GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, December 29, 1911.
E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.
Approved for printing.
EDWARD H. LATHROP, *Mayor.*

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OUR PUBLIC PARKS.

1911.

NAME.	LOCATION.	ACRES.
Armory Street Reservoir Park.	Armory street	7.64
Armory Street Triangle	Armory street	.02
Belmont Triangle	Belmont avenue	.03
Benton Lawn	State street	3.53
Calhoun Square	Chestnut street	2.43
Carew Triangle	North Main street	.08
Clarendon Fountain	Clarendon street	.10
Concord Terrace	Concord terrace	.15
Cottage Hill Grove	Indian Orchard	3.34
Court Square and Extension	Main street	4.23
Crescent Terrace	Crescent terrace	.48
Dartmouth Fountain	Dartmouth street (end of)	.15
Dartmouth Terrace	Dartmouth street (end of)	.39
Dorchester Rest	Dorchester street (end of)	.11
Emerson Wight Playground	Rutledge avenue (end of)	6.55
Florentine Gardens	Spruceland avenue	.17
Forest Park	Sumner avenue	476.10
Garfield Triangle	Garfield street	.13
Gerrish Park	Walnut street	1.10
Grenada Terrace	Grenada terrace	.35
Gunn Square	Westford avenue	.80
Kenwood Park	Belmont avenue	.39
Kenwood Terrace	Sumner avenue	.21
Kibbe Fountain	Federal street	.07
Lafayette Rest	Lafayette street (end of)	.10
Magnolia Terrace	Magnolia terrace	.29
Maplewood Terrace	Maplewood terrace	.76
Marengo Park	Marengo park	.46
Massachusetts Terrace	Massachusetts avenue	.36
McKnight Glen	Ingersoll grove	2.92
McKnight Triangle	Bay street	.62

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NAME.	LOCATION.	ACRES.
Merrick Terrace	State street	.55
Mill Street Fountain	Mill street	.05
Mill River Rest	Mill street	.08
Oak Grove Park	Oak Grove avenue	.57
Public Lawn	Main street	.53
Sargeant's Rest	North Main street	.24
Smith's Triangle	Maple street	.09
Stearns Square	Bridge street	.46
Sumner Terrace	Sumner avenue	.17
Tapley Playground	Sherman street	1.07
The Levee	Elm street (end of)	.91
Thompson Triangle	St. James avenue	1.06
Van Horn Reservoir Park	Armory street	68.72
Watershops Triangle	Walnut street	.18
Westford Circle	Westford avenue	.35
West Street Triangle	West street	.13
Winchester Square	State street	.62
Total, forty-nine parcels		589.84

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INVENTORY.

ROLLING STOCK, TOOLS, ETC.

4 ash cans,
2 ash sifters,
12 axes,
1 atlas (City of Springfield),
4 athletic frames and apparatus,
1 set Armstrong dies,
2 bush scythes and snaths,
6 ball field seats,
10 sets basketball stops,
1 bench saw,
100 bench leg castings,
2 bookcases,
1 bevel,
1 breast derrick,
1 belt punch,
10 blankets (street),
9 blankets (summer),
9 blankets (stable),
1 buggy robe,
10 brooms,
2 bull staves,
2 black-jacks,
2 buckeye dies,
200 bolts (assorted sizes),
1 bit brace,
4 bits,
1 Champion blower,
4 carts (2-horse),
1 Concord buggy,
40 bags cement,
1 cleaver,
3 chain hoists,
1 cant hook,
2 cleaning scrapers,
115 cold frame sash,
1 concrete mixer,
1 set concrete finishing tools,
8 chains (heavy),
12 chains (binder),
4 crowbars,
7 calf straps,
4 cow halters,
2 cannons,
8 cold chisels,
2 chain pipe tongs,
1 circular glass cutter,
1 clock,
33 canvas baby swings,
2 dump carts,
1 drilling machine (power),
1 drilling machine (hand),
1 diaphragm pump,
1 desk (flat top typewriter),
2 desks (roll top),
3 desk chairs,
3 dog harnesses,
1 set drills,
3 extension ladders,
100 enamel iron signs,
4 fire extinguishers,
30,000 flowerpots,
1 force pump,
4 fly nets (horse),
9 feed bags,
1 Ford bender,
4 files,
50 sacks fertilizer,
3 grindstones,
1 greenhouse sprayer,
1,000 feet garden hose,
2 galvanized iron barrels,

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6 galvanized iron pails,
1 grain cart,
1 garden rake,
1 gasoline stove,
1 set grain measures,
50 gal. gasoline,
1 gauge glass cutter,
4 grease cups (¼"),
13 gate wrenches,
1 case greenhouse glass,
3 grass hooks,
10 giant strides,
1 Hercules shear cutter,
1 hydrant wrench,
1 hydrant reducer,
1 hydrant cock,
2 harrows,
1 hand truck,
8 hand carts,
1 horse clipping machine,
4 sets harness (double),
1 set harness (light single),
1 set harness (heavy single),
9 halters (stable),
1 halter (street),
1 halter (neck),
4 hitch weights,
2 hose nozzles,
2 hand cultivators,
5 hot water heaters,
8 hayforks,
1 hatrack,
2 pair handcuffs,
3 hammers,
10 hayrakes,
10 hoes,
8 pairs ice tongs,
6 iron wedges,
3 iron vises,
2 iron anvils,
1 iron settee,
1 iron tamping bar,
10 iron pounders,
3 ice planes (iron),
1 iron ice plane (wood),
4 ice picks,
1 Knox 3-ton truck,
2 jackscrews,
2 lawn mowers (horse),
22 lawn mowers (hand),
5 ladders (20-foot),
7 ladders (15-foot),
2 leveling instruments,
3 levels,
7 lighting torches,
12 lanterns,
1 letter filing case,
1 letter scale,
1 letterpress,
1 lawn hose bib,
3 lawn sprayers,
2 gal. lubricating oil,
5 gal. linseed oil (raw),
1 gal. linseed oil (boiled),
4 gal. cylinder oil,
1 mowing machine,
1 mowing machine sharpener,
2 merry-go-rounds,
3 manure forks,
2 milk pails,
70 mantles (gas),
1 motocycle,
3 mascot letter files,
3 mirrors,
2 medicine cabinets,
2 mole traps,
4 monkey wrenches,
2 mason hoes,
6 gal. mixed paints,
1 set Nye taps,

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1 Orchard Monarch sprayer,
2 oil faucets,
2 oil cans,
1 oilstone,
3 oilers,
1 power lathe,
1 power emery grinder,
1 portable furnace,
6 sets pulley blocks,
2 plows,
24 Pitner gasoline lamps,
950 park settees,
1 platform scale,
3 pipe cutters,
1 pipefitter's vise,
2 pipe wrenches,
1 set pipe taps,
4 plasterers' trowels,
6 pairs pruning shears,
1 plant sprayer,
2 pruning saws,
1 posthole digger,
12 pickaxes,
225 feet rope,
2 rollers (hand),
1 road roller (steam),
9 rain covers (for horses),
4 rakes (wooden),
12 rakes (lawn),
1 refrigerator,
1 "Revised Laws of Massachusetts" (2 vols. and index),
8 feet rubber tubing,
1 reamer (1¼"),
3 reamers (small),
1 rule (8 feet),
6 red lanterns,
1 road scraper,
4 sleds (2-horse),
12 scythe snaths,
25 steel shovels,
24 snow shovels,
2 shovels (iron, round-pointed),
2 saws (crosscut),
7 saws (hand),
1 saw (keyhole),
1 saw set,
1 scoop shovel (long handle),
1 seed sower,
89 slides,
72 seesaws (18 frames),
84 swings (21 frames),
4 snow scrapers (2-horse),
2 steam roller street signs,
1 sled (1-horse),
1 sleigh,
1 stone boat,
1 sheep-shearing machine,
1 steel square,
2 stone drills,
3 spading forks,
4 stable brooms,
1 stove,
6 Stillson wrenches,
2 screw-drivers,
1 steam gauge,
12 self-closing faucets,
2 soldering irons,
14 steel traps,
2 stone hammers,
6 stone chisels,
2 sledge hammers,
4 springboards,
1 tinner's snips,
2 gal. turpentine,
2 torches,
1 tape measure (50 feet),
1 tape measure (100 feet),

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2 vaulting boxes,
2 watering carts (2-horse),
1 wagon (2-horse),
1 wagon (light, 1-horse),
1 wagon (low-down, 2-horse),
10 wheelbarrows (iron),
2 wheelbarrows (garden),
2 weeders (hand),
1 wood stove,
2 wire-stretchers,
12 walk cleaners,
2 wheeled weeders,
1 weed burner,
1 washtub,
7 watering pots,
4 whips,
2 gal. wood alcohol,
1 Wood's "Animate Creation" (3 vols.),
1 wastebasket,
1 bale waste,
75 rods woven wire fencing,
300 feet woven wire netting.

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CITY FORESTER.

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COMMITTEE ON FORESTRY

Alderman HENRY LASKER, *Chairman*

Alderman EDW. S. GOLDTHWAITE, *Secretary*

Alderman RALPH W. WIGHT

WILLIAM F. GALE,

City Forester

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REPORT OF THE

COMMITTEE ON FORESTRY.

SPRINGFIELD, MASS., December 28, 1911.

To the Honorable, the Mayor, and City Council.

GENTLEMEN:—The fourteenth annual report of the Forestry Department for the year ending November 30, 1911, is hereby respectfully submitted.

FINANCES.

The expenditures of the department are shown in the report of the City Forester hereto annexed.

NEW TREES.

Again we wish to emphasize the importance of planting new trees every year. A liberal appropriation for this special work is asked of the incoming Council, not alone for the streets in the thickly settled sections, but for the suburban roads as well. Pecousic avenue has further been improved by the Highway Department, and we hope that trees may be planted on both sides as far as the grade has been worked at the earliest convenience, and followed up each year until complete.

NEW BUILDINGS.

The new buildings for the housing of this department at 107 Pecousic avenue have been completed, and the grounds graded in part. The parcel of real estate on which our buildings are located has been transferred to the care of this department,

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and we recommend that a sufficient appropriation be made to complete the grading, also for planting trees and shrubs according to the plans of the City Forester.

MACHINERY FOR INSECT CONTROL.

The purchase of a new powerful spraying outfit has proved to be a satisfactory investment, and as new outfits are required we recommend that power sprayers be purchased in preference to hand pumps. In the search for Gypsy Moths by the employees of the U. S. Department of Entomology last winter none were found. The scouts employed by the city to search for Brown-tail Moths found quite a number of nests, mostly in the extreme northern part of the city. It is not expected that all the nests were found, but the work was so thoroughly done that there has been no noticeable injury from their work. The City Forester will canvass the city during the winter, especially the main thoroughfares to the east and along the railways, and will destroy any nests that may be found. We believe that thorough search every winter will do much to keep these pests under control.

This Committee desires to extend its thanks to His Honor, the Mayor, and City Council for the courtesy shown during the year, and to express its appreciation of the efficient service rendered by the City Forester, William F. Gale.

HENRY LASKER,
E. S. GOLDTHWAITE,
R W. WIGHT,

Committee on Forestry.

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CITY FORESTER'S REPORT.

SPRINGFIELD, MASS., December 28, 1911.

To the Committee on Forestry.

GENTLEMEN:— I hereby submit my report for the municipal year closing November 30, 1911.

SUMMARY OF INVENTORY.

Forestry tools on hand, November 30, 1911,..	$553 08	
Bought during the year,.....	175 80	
	$728 88	
Less 25 per cent. for the year's depreciation,	182 22	
		$546 66
Machinery and tools for insect control,.....	$1,269 38	
Bought during the year,.....	796 38	
	$2,065 76	
Less 25 per cent. for the year's depreciation,	516 44	
		1,549 32
Present value of machinery and tools,.....		$2,095 98
Miscellaneous property:—		
Real estate at No. 107 Pecousic avenue,		4,000 00
Buildings situated on above,.....		14,000 00
Office furniture at 111 Bridge street,...	$81 00	
Wall case in Water Department building,	25 00	
	$106 00	
Less 10 per cent. for the year's use,.....	10 60	
		95 40
Amount carried forward,		$20,191 38

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Amount brought forward,		$20,191 38
Hay and grain at Pecousic avenue,		15 00
Barn fixtures,		18 00
Gray mare,		150 00
Street signs, fixtures, and tools,		100 00
Nursery stock at foot of Magnolia terrace,		200 00
Net value of property,		$20,674 38

RESOURCES.

Appropriation, transfers and unexpended from special appropriation,	$24,425 00

EXPENDITURES—BILLS APPROVED.

Forestry, other than insect control:—		
Labor,	$6,623 50	
Tools (new),	175 80	
Tools (repairs),	197 13	
Fertilizer and mending trees,	471 05	
Office expenses,	107 19	
Building account, completing new buildings at 107 Pecousic avenue, grading grounds in part,	9,278 69	
Barn account, feed and keeping horse,	250 64	
Trees set and labor,	210 50	
Tree guards,	27 50	
Miscellaneous,	113 12	
		$17,455 12
For the control of injurious insects:—		
Labor, $4,385 24		
Special brown-tail moth work, 75 31		
	$4,460 55	
Spraying machinery (new),	796 38	
Amounts carried forward,	$5,256 93	$17,455 12

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Amounts brought forward,	$5,256 93	$17,455 12
Spraying tools (repaired),	276 47	
Insecticides,	629 87	
		6,163 27
Street signs and fixtures,		280 93
Smoke abatement,		520 29
		$24,419 61

To the Street Sign account should be added $71.56 charged to horse keeping, storage and office expense, making a total of $352.49 total cost of street sign work during the year.

RECAPITULATED.

Cost of caring for street trees other than insect work:—

Labor,	$6,623 50	
Repairs on tools,	197 13	
Fertilizers and mending trees,	471 05	
Depreciation in tools,	182 22	
From building, barn and office account,	178 90	
		$7,652 80

Cost of protecting trees from injurious insects:—

Labor,	$4,460 55	
Repairs on tools,	276 47	
Depreciation in value of tools,	516 44	
From building, barn and office account,	107 34	
Insecticides used,	629 87	
		$5,990 67

TREES SUFFER FROM LACK OF WATER.

The extreme dry fall of 1910 was the cause of much injury to trees, especially those of an evergreen nature, and also to those which were so situated that they could get but little of the water that fell. As a matter of history I want to record that conifers and broad-leaved evergreens never suffered in

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this section as during the fall and winter of 1910–11, due largely, as stated before, to the winter coming on with insufficient water in the ground to carry them through. The water fall of last October and November will help all our trees to winter much better this season; and we look for less "winter injury" than for some years.

MENDING TREES.

We have done the usual amount of this work, chiefly by bolting, where high winds have caused breaks; some cleaning and treating of old wounds and filling has been done where conditions would warrant the expense. Considerable more of this work should be done.

SPRAYING ELMS FOR THE ELM-LEAF BEETLE.

The purchase of improved spraying apparatus has enabled us to cover the city in less time than we have been able to in some seasons past. By the purchase of more of this machinery we shall be able to cover the worst infested districts twice in a season.

A portion of the poison used this year in spraying did not give the usual results. The trouble was not discovered until too late to have the matter remedied, and sections in which this solution was used suffered much more than usual.

OTHER INSECTS.

All other insects infesting public trees have been successfully treated and are well under control. Fruit trees and certain shrubs on private property are infested with scale that should be exterminated, or they will destroy the hosts. Those having such infested trees or shrubs will be advised by the City Forester how best to treat them if so wished.

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THE CHESTNUT TREE DISEASE.

Representatives of the U. S. Department of Agriculture spent some time in this section during the past summer investigating the chestnut tree disease, so-called, finding that several trees in this city and locality were diseased. But very few chestnuts are among our street trees. Some authorities tell us that the disease cannot be killed out, and this is undoubtedly true in large groves or in the forest; but we expect to treat what few chestnuts we have with the hope that we may save a part of them at least. Those having chestnut trees on their property should have them examined by competent persons and adopt their recommendations.

STREET SIGNS.

The placing of street signs is assigned to the City Forester. All the orders placed for name plates were not filled in season to come under this season's work. During the winter a considerable number will be placed on posts that were set last fall.

SMOKE ABATEMENT.

The undersigned is in charge of this work. During the past year 923 observations were made. Several violations were noted, most of which have been remedied, while several are on probation. Prosecutions will depend upon their future compliance. Several new prosecutions have been brought against the Springfield Street Railway for continuous violations; these and all other appealed cases came up in Superior Court this month. The court imposed a fine of $3,000 covering them all. The continuous following up of this corporation with one complaint following another during the last two years has resulted in doing away with a large amount of smoke and I am in hopes, now that the court cases are disposed of, that a still better condition may be expected.

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Several prosecutions have been brought against the railroads on account of the smoke from their locomotives. All these have been appealed to the higher courts on questions of law.

Respectfully submitted,

WILLIAM F. GALE,

City Forester.

BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *City Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred,

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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LICENSE COMMISSIONERS.

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REPORT OF THE

BOARD OF LICENSE COMMISSIONERS.

To His Honor, the Mayor, and the City Council of the City of Springfield:—

The Board of License Commissioners beg to submit their annual report for 1911.

For the purpose of comparison as to the number of licenses of each class granted, and the receipts from them during the last thirty years, we insert from the Municipal Register the following figures:—

YEAR.	CLASS.							Total.	Receipts.
	1st.	2d.	4th.	5th.	6th.	7th.	Club.		
1882	32	3	28	6	....	....	....	69	$13,400 00
1883	40	7	39	10	....	....	....	96	25,900 00
1884	....	....	....	....	27	....	....	27	27 00
1885	66	11	73	8	....	....	....	158	46,225 00
1886	26	4	28	2	1	....	....	60	20,850 00
1887	....	....	....	....	....	....	....	....	....
1888	60	6	40	4	26	....	2	138	48,526 00
1889	28	1	8	2	31	....	2	72	47,731 00
1890	26	....	9	2	27	....	1	65	51,227 00
1891	30	....	12	2	33	....	2	79	60,783 00
1892	38	....	4	2	32	....	2	78	63,832 00
1893	39	....	3	2	31	....	3	78	65,231 00
1894	39	....	3	2	30	....	4	78	65,530 00
1895	39	....	3	2	30	....	4	78	65,784 00
1896	44	....	4	2	36	....	4	90	76,237 00
1897	45	....	4	2	34	....	3	88	76,278 17
1898	44	....	5	2	35	....	3	89	77,134 00
1899	44	....	5	2	34	....	5	90	77,636 00
1900	44	....	5	2	34	....	5	90	84,535 00
1901	53	....	57	2	36	....	4	*100	100,709 00
1902	54	1	59	2	35	....	3	*100	102,939 00
1903	54	1	58	3	36	....	3	*101	102,236 00
1904	53	1	58	3	35	....	4	*101	102,186 00
1905	53	1	58	3	36	....	4	*99	102,186 00
1906	53	1	58	3	36	....	4	*102	100,391 10
1907	53	1	58	3	36	....	4	*102	122,988 00
1908	53	1	58	3	35	....	6	*104	123,438 00
1909	54	1	59	3	36	1	6	*106	125,390 00
1910	54	1	59	3	38	1	6	*108	125,392 00
1911	56	1	39	3	41	....	4	*127	145,793 00

*No. of Licensed Places.

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The Licenses granted to date of this report, to expire May 1, 1912, are as follows:—

COMMON VICTUALERS—FIRST CLASS.

To sell liquors of any kind to be drunk on the premises ($1,500 each).

Beach & Kane,	173 Chestnut street.
Blackmer, C. J., & Co.,	333 Water street.
Breglio, P. A., & Co.,	300 Worthington and 384 Dwight streets.
Bresnahan, James F.,	483 Main and 18 Market streets.
Burke, Thos. J., & Co.,	521 Main and 4 Stockbridge streets.
Cone, Wm. H., & Co.,	11 Hampden street.
Coogan, John P., Co., Inc.,	12 Sanford and 34 Market streets.
Coogan & Quilty,	191 Chestnut street.
Coughlin, Thos., & Co.,	116 State street.
Crowley, M. J., Liquor Co.,	485 State and 3 Walnut streets.
Delaney, Bernard J., Co.,	603 Main street.
Duquette, A. H., & Co.,	552 Main street.
Fitzgerald, T. J., Co.,	225 Main street.
Higgins, Joseph W., & Co.,	545 and 547 Main street.
Hohenberger, H. S., & Co.,	3 Pynchon street.
Kelley, A., & Co.,	167 Bridge street.
Kelley, Michael A., & Co.,	510 Main street.
Lange, Theodor, & Co.,	257 Bridge street.
Lennehan, J. J., & Co.,	215–217 Worthington street.
Lubold, H. E., & Co.,	11 Lyman street.
McGrath, Thos., & Co.,	209 Chestnut and 131 Lyman streets.
Missett & Maloney,	50 Sanford and 26–30 Dwight streets.
Murphy, C. J., & Co.,	315 Worthington and 349 Dwight streets.
Murphy, Wm. J., & Co.,	45 and 47 Market street.
O'Brien & Reagan,	121 Lyman street.
Phillips, C. W., & Co.,	64 Bridge and 71 Water street.
Reidy, John A., & Co.,	199½ and 201 Main, and 2 Liberty streets.
Reilly & Toole,	71 and 73 Market street.
Roos, George J., & Co.,	69 Water street.
Ryan, S. A., & Co., Inc.,	179 Main and 11 Ferry streets.
Scully, J. F., & Co.,	660½ Main street.
Sollace, George E.,	190 Main street.
Toomey & Cody Co.,	145 Main and 7 Congress streets.
Walsh, John J.,	23 Walnut street.

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Walsh & McInerney,	3, 5, and 7 E. Court and 50 Market streets.
Waverly Liquor Co.,	15–19 Sanford and 25 Market streets.
Welch & Collins,	191–193 Main street.
Winkler Brothers,	63 Bridge and 79 Water streets.
Young, William M.,	189 Main street.

Number of Common Victualers' First Class Licenses, 39.

WHOLESALERS—FOURTH CLASS (CLASS W).

To sell liquors of any kind not to be drunk on the premises ($2,000 each).

Barry, Garratt S.,	271 Bridge and 6–8 Barnes streets.
Coats, E. M., Co., Inc.,	5–11 Market street.
Flanaghan, Terrence, & Co.,	100 State street.
Glickman & Kushner,	41 Ferry street.
Henking, Gus C., & Co.,	119 Lyman street.
Jefferson & Deely,	192 Worthington street.
Ryan, S. A., & Co., Inc.,	183 Main street.
Rieutord, Charles E.,	146 Main and 18 Oak streets, Indian Orchard.
Tone, Phil, & Co.,	591 Main street.
Toomey & Cody Co.,	147 and 147½ Main street.
Waverly Liquor Co.,	21 Sanford street.
Young, William M.,	187 Main street.

Number of Fourth Class Licenses, Class W, 12.

FOURTH CLASS (CLASS R).

To sell liquors of any kind not to be drunk on the premises ($1,500 each).

Beach & Kane,	171A Chestnut street.
Breglio, P. A., & Co.,	386 and 388 Dwight street.
Delaney, Bernard J., Co.,	599 Main street.
Dillon, James, & Co.,	704 Main street.
McGrath, Thos., & Co.,	207 Chestnut street.
Murphy, C. J., & Co.,	319 Worthington street.
Murphy, William J., & Co.,	17 E. Court street.
Spaight, Daniel,	188 Main street.
Walsh, John J.,	19 Walnut street.

Number of Fourth Class Licenses, Class R, 9.

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WHOLESALE DRUGGISTS—FOURTH CLASS.

To sell liquors of any kind (to drug trade only) not to be drunk on the premises ($600).

Brewer, H. &. J., Co.,	404 Dwight and 67 and 73 Taylor streets.

Number of Wholesale Druggists' Fourth Class Licenses, 1.

INNHOLDERS—SECOND CLASS.

To sell malt liquors, cider and light wines, to be drunk on the premises ($600).

Barr, The E. C., Co.,	384–388 Main street.

Number of Innholders' Second Class Licenses, 1.

BREWERS—FIFTH CLASS.

To sell malt liquors, cider and light wines, not to be drunk on the premises ($2,700 each).

Liberty Brewing Co.,	Cor. Liberty and Charles streets.
Springfield Breweries Co.,	Fort, Water and Hampden streets.
Springfield Breweries Co.,	1273 State street.

Number of Fifth Class Licenses, 3.

INNHOLDERS—FIRST AND FOURTH CLASS.

To sell liquors of any kind ($2,250 each).

Buckley, E. L., & Co.,	256–268 Main and 2–20 Hampden streets.
Chapin, William H.,	Cor. Main and Railroad streets.
Edgar & Hartenstein,	222–224 Main street.
Gilmore Hotel Co.,	418–428 Main street.
Grise, Charles,	13 Oak street, Indian Orchard.
Guyer, A. G., & Co.,	92–96 State street, 12–14 Court House place, and 29 Elm street.
Hampden Hotel Co.,	134 Chestnut and 415 Bridge streets.
Hawkins, James L.,	267–269 Main street.
Henking, H. C., Co.,	15–23 Lyman street.
Heydt, John,	179 Main street, Indian Orchard.
Katz, Louis,	Cor. Main and Bliss streets.

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Lerche's Hotel Company,	93 and 95 State street.
Marsh, H. E., & Co.,	Cor. Main and Liberty streets.
McCarthy, John J., & Co.,	243–249 Main street.
Shaw, John T., G. C. Tait, and George E. Shea,	406 Main and 10–12 Pynchon streets.
Sievers, D. H., & Co.,	Cor. Hillman and Barnes streets.
Worthy Hotel Co.,	303 Main and 169, 171 and 187 Worthington streets.

Number of Innholders' First and Fourth Class Licenses, 17.

DRUGGISTS—SIXTH CLASS.

To sell liquors of any kind for medicinal, mechanical, and chemical purposes only ($1.00 each).

Adams, Charles F.,	54 Walnut street.
Adams, Henry,	429 Main street.
Anderson, Bert P.,	232 Main street.
Barker, Irvin R.,	242 Main street.
Beauvais, Joseph H.,	570 Main street.
Browne, William A.,	410 Main street.
Chenette, Joseph E.,	164 Main street, Indian Orchard.
Clancy, Daniel M.,	152 Main street, Indian Orchard.
Coolbroth, F. H.,	360 Bay street.
Cunningham, A. W.,	272 Worthington street.
Curley, James E.,	296 Hancock street.
Darby, Norman A.,	441 Armory street.
Delehanty, J. W.,	492 Mill street.
Dickinson, Homer F.,	298 Belmont avenue.
Dooley, Timothy J.,	267 Central street.
Elsey, Harry P.,	593 Main street.
Erard, Philip V.,	369 Chestnut street.
Hapgood, Edwin O.,	463 Main street.
Hart, Walter J.,	279 North Main street.
Hayn, Herman E.,	807 Main street.
Keefe, Daniel F.,	180 Hancock street.
Leighton, Percy A.,	21 White street.
Leonard, Edwin F.,	72 Main street.
Lerche, Albert E.,	325 Main street.
Longtin, Rosario E.,	245 Bay street.
McCarthy, Thos. F.,	512 Sumner avenue.

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Merriam, Wm. C. B.,	643 Main street.
Morse, George N.,	85 Wilbraham road.
Noble, William B.,	167 Chestnut street.
Richards, Stanley A.,	188 State street.
Ruder, L. F.,	377–379 Main street.
Ryan, Charles V.,	161 Main street.
Sadler, William L.,	530 and 532 Main street.
Sexton, Charles S.,	477 State street.
Simmers, Henry J.,	827 State street.
Smith, Fred H.,	372 Belmont avenue.
Smith, John D.,	271 Main street.
Sunter, Alexander E.,	438 Chestnut street.
Taylor, Albert W.,	326 North Main street.
Thompson, Clifford P.,	503 Main street.
Wheeler, Fred N.,	802 State street.

Number of Sixth Class Licenses, 41.

CLUB.

To distribute and dispense intoxicating liquors to members ($300 each).

B. K. Bruce Club,	542 Main street.
Nayasset Club,	61–71 State street.
Springfield Lodge of Elks No. 61,	Cor. Chestnut and Worthington streets.
Springfield Turn Verein,	79–83 State street.

Number of Club Licenses, 4.

Number of First, Second, Fourth, and Fifth Class Licenses,	82
Number of Sixth Class Licenses,	41
Number of Club Licenses,	4
Total	127

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There were 104 Special Sunday Licenses granted, at $5.00 each, for the sale of ice cream, confectionery, fruit, and soda water on the Lord's Day. Also 89 Common Victualers' Licenses granted, and 23 Innholders' Licenses, at $5.00 each.

On June 10 a hearing was given Charles E. Rieutord of 146 Main street, Indian Orchard, in relation to charge brought against him by M. H. Lyons of 144 Main street. After hearing witnesses on both sides it was voted by a majority of the Board to dismiss the case.

On June 19 the Fourth Class Liquor License of E. M. Coats Co., Inc., was suspended for ten days, from 11 P. M. June 24, to 6 A. M. July 5, on account of having in their employ or furnishing beer to J. Rubin, or J. Rubinstein (the man being known by both names), this man being arrested and found guilty of peddling beer.

On June 19 the Fourth Class Liquor License of P. A. Breglio & Co. was suspended for ten days, from 11 P. M. June 24, to 6 A. M. July 5, for having an agreement with Salvatore Santanello to furnish him with beer for the purpose of soliciting orders and delivering same.

On June 19 John Heydt surrendered his Innholders' First and Fourth Class Liquor Licenses granted to him for the current year to be exercised in the Indian Leap Hotel, located at 179 Main street, Indian Orchard, and it was thereupon voted that the said licenses be canceled under the provision of Chapter 171, Section 1, of the Acts of 1902.

On June 19 an Innholders' First and Fourth Class Liquor License was granted to Indian Leap Hotel Company, to be exercised in Indian Leap Hotel, located at 179 Main street, Indian Orchard.

On September 15 a Sixth Class Liquor License was granted to Charles E. Bagley, at No. 410 Main street, thereby canceling license previously granted to William A. Browne at same address.

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On September 23 Michael A. Kelley and William E. Dooley, copartners under the firm name of Michael A. Kelley & Co., surrendered their Common Victualers' First Class Liquor License granted to them for the current year to be exercised at No. 510 Main street and it was thereupon voted that the said license be canceled under the provisions of Chapter 171, Section 1, of the Acts of 1902.

On September 23 a Common Victualers' First Class Liquor License was granted to the Mansion House Company, to be exercised in one room and basement beneath the same at No. 510 Main street.

On October 31 the First and Fourth Class Liquor Licenses of John J. McCarthy, William O'Connell, and William Hickey, copartners under the firm name of John J. McCarthy & Co., granted to them for the current year to be exercised in the American House at 243 to 249 Main street, were suspended for a period of 33 days, from Friday, November 3, at 11 P. M., until 6 A. M. December 7, on account of illegal selling of liquor without food by one of their waiters on Sunday, October 1, 1911.

November 21 a Sixth Class Liquor License was granted to Stanley B. Bennett at No. 85 Wilbraham road, thereby canceling license previously granted to George N. Morse at this same address.

Transfers made during the year:—

October 24 the First Class Liquor License of Toomey & Cody Co. was transferred from 145 Main street and 7 Congress street to 143 Main street and 8 Congress street.

October 24 the Fourth Class Liquor License of Toomey & Cody Co. was transferred from 147 and 147½ Main street to Nos. 137, 139 and 141 Main street.

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The expenses of the Board for the year are as follows:—

Clerk hire,	$100 00
Postage and incidentals,	40 75
Printing and advertising,	97 08
Rent of office,	300 00
Salary of Secretary,	250 00
Total,	$787 83
Amount received for recording licenses,	376 00
Net expense of the Board,	$411 83

Respectfully submitted,

WILLIAM M. TITUS,
CHAS. P. CHASE,
JOHN H. CLUNE,

Board of License Commissioners.

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BOARD OF ALDERMEN, December 11, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 11, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 11, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 12, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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LIGHTING STREETS.

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REPORT OF THE

COMMITTEE ON STREET LIGHTING.

To the Honorable City Council, Springfield, Mass.

GENTLEMEN:—The Street Lighting Committee respectfully submit the attached report of the Superintendent, upon which we, as a committee, stamp our approval.

Mr. Converse has given the matter excellent attention. The Street Lighting work for the year has been handled in the usual satisfactory manner. Every petition asked for has had personal inspection. Probably the most important matter that this committee have had to deal with has been the changing of lights on Main street, increasing the lighting facilities very materially without additional expense.

You will find attached the usual report for the year ending November 30, which we herewith submit for your consideration.

Respectfully signed,

C. B. HITCHCOCK, *Chairman,*
FRANK E. STACY,
M. J. MEEKER,
JULIAN R. ALBEE,
GEORGE W. STREETER,

Committee on Street Lighting.

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SUPERINTENDENT'S REPORT.

To the Committee on Street Lighting.

GENTLEMEN:—The report of the Superintendent of Street Lighting for the year 1911 is herewith presented.

The work of this department in its general character varies but little from year to year. The ever present problem is how to obtain maximum efficiency at minimum cost, and how to make such extensions of service as the citizens may demand without unreasonably increasing the expense of the department. Changed conditions in the older sections of the city, unusually large growth in the new ones, and the constant demand for a more powerful light in the business section, with improved appliances, materially change the factors of the problem. The growth of the suburban parts of the city has been very large in the past few years. The 125 Magnetite lamps installed in place of the General Electric inclosed lamps on Main street from Carew to Locust streets, State street from Water street to St. James avenue, Maple street from State to Central streets, and on Bridge street, have made a decided improvement. These lights have been put in by the United Electric Light Company without any extra expense to the city, and I would recommend that this type of lamps be used throughout the city. If this lamp should be adopted, it will be necessary to use a higher pole where the trees will permit, as better results are obtained. The installing of twenty-one 60 C. P. Tungsten lights on Chicopee road, from Carew street to St. James avenue, has greatly improved that thoroughfare, and it is recommended that these lights be used for all narrow or sparsely settled streets. The expense is small and the results good.

The work in this department is increasing every year and

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the purchase of an electric truck would greatly facilitate the work, as much time could be saved by its use. Also the increase of clerical work makes it advisable to ask for a sufficient appropriation to insure a permanent clerk.

Attached to and made a part of this report will be found a financial statement for the year ending November 30, 1911.

Comparison of expenditures and inventories, 1897 to 1911, year by year.

Comparison of appropriations and receipts, 1897 to 1911.

Comparison of arc and series incandescent lights, 1898 to 1911.

List of new arc lights installed during 1911.

List of new series incandescent lights installed during 1911.

List of poles changed during 1911.

Detailed inventory of stock on hand, not in use, December 1, 1911, as well as detailed inventory of property in use, December 1, 1911.

Respectfully submitted,

W. J. CONVERSE,

Superintendent of Street Lighting.

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BOARD OF ALDERMEN, December 21, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 21, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 22, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 22, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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EXPENDITURES AND INVENTORIES PER YEAR.

	Expenditures.	Increase.	Inventory.	Increase.
1897	$52,150 96			
1898	55,822 61	$3,671 65	$14,195 47	
1899	58,868 87	3,046 26	15,396 20	$1,200 73
1900	61,167 76	2,298 89	14,967 38	*428 82
1901	65,483 03	4,315 27	17,483 80	2,516 42
1902	70,268 98	4,785 95	18,846 57	1,362 77
1903	74,082 69	3,813 71	21,828 24	2,981 67
1904	76,337 13	2,254 44	24,758 98	2,930 74
1905	78,668 21	2,331 08	27,737 67	2,978 69
1906	80,265 57	1,597 36	27,140 24	*597 43
1907	78,245 50	*2,020 27	26,639 76	*500 48
1908	86,243 84	7,998 34	28,715 28	2,075 52
1909	90,291 12	4,047 28	29,391 37	676 09
1910	96,908 49	6,617 37	31,415 41	2,024 04
1911	104,246 23	7,337 74	30,513 20	*902 21
		*Decrease.		*Decrease.

	Appropriations and Receipts.	Increase.	Balance Unexpended.
1897	$53,003 10		$852 14
1898	57,077 50	$4,074 40	1,254 89
1899	60,452 60	3,375 10	1,538 73
1900	63,157 26	2,704 66	1,989 50
1901	66,242 16	3,084 90	759 13
1902	70,737 11	4,494 95	468 13
1903	74,194 11	3,457 00	111 42
1904	76,727 71	2,533 60	390 58
1905	79,348 55	2,620 84	680 34
1906	80,281 77	933 22	16 20
1907	78,280 96	*2,000 81	35 46
1908	86,255 71	7,974 75	11 87
1909	91,148 46	4,892 75	557 34
1910	97,866 36	6,717 90	957 87
1911	104,660 11	6,793 75	413 88
			*Decrease.

1908—$300.00 tranaferred to Engineering Department.

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ARCS AND SERIES INCANDESCENT LIGHTS PER YEAR.

	ARC LIGHTS.		SERIES INCANDESCENT LIGHTS.	
	No. Installed.	No. Replaced by Series Lights.	No. Installed.	No. Replaced by Arc Lights.
1898	46		12	
1899	49		42	
1900	44			3
1901	49		3	3
1902	52		1	6
1903	34			2
1904	27		4	4
1905	42	4	20	2
1906	22	1	2	2
1907	35	1	11	
1908	22			
1909	43	5	71	
1910	85	5	70	3
1911	67	2	106	9

NEW ARC LIGHTS INSTALLED IN 1911.

Location.	Character.
Alderman street, corner Ventura street,	Mastarm.
Bay street, corner Catharine street,	Mastarm.
Bay street, corner Edgewood street,	Mastarm.
Belmont avenue, corner Sumner avenue,	Mastarm.
Belmont avenue, between No. 340 and No. 344,	Mastarm.
Belmont avenue, near junction of Hollywood,	Mastarm.
Berkshire avenue, about 300 feet east of Boston road,	Mastarm.
Berkshire avenue, at junction of Bay street,	Mastarm.
Berkshire avenue, corner Fullerton street,	Mastarm.
Birnie avenue, near Atlas factory,	Mastarm.
Bliss street, between No. 24 and No. 26,	Mastarm.
Bliss street, between No. 68 and No. 70,	Mastarm.
Boylston street, between Emery and Clinton streets,	Gooseneck.
Broad street, between No. 62 and No. 64,	Mastarm.
Carew street, between No. 194 and No. 198,	Mastarm.
Carew street, 200 feet east of Liberty street,	Mastarm.
Chestnut street, southwest corner Patton street,	Mastarm.
College street, 300 feet north of Shattuck street,	Mastarm.
Court street, 200 feet west of City Hall avenue,	Gooseneck.

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Location.	Character.
Dwight street, opposite New street,	Gooseneck.
Essex street, between No. 118 and No. 122,	Mastarm.
Florida street, between No. 29 and No. 31,	Mastarm.
Forest Park avenue, between Westernview street and Woodside terrace,	Mastarm.
Forest Park avenue, corner Mountainview street,	Mastarm.
Gardner street, corner Hanover street,	Mastarm.
Greene street, corner Monson avenue,	Mastarm.
Harrison avenue, opposite No. 42,	Gooseneck.
Irvington avenue, about 200 feet north of Trinity terrace,	Mastarm.
Jasper street, midway Berkshire avenue and Boston road,	Mastarm.
Magnolia terrace, corner Washington road,	Mastarm.
Main street, I. O., near No. 260,	Mastarm.
Massachusetts avenue, south line of No. 62,	Mastarm.
Mill street, between Pine and Maple streets,	Mastarm.
Mill street, near Knox street,	Mastarm.
Mill street, 150 feet east of Locust street,	Mastarm.
North street, southwest corner Bond street,	Mastarm.
North street, southwest corner Congress street,	Mastarm.
Oak Grove avenue, 3d south of Bay street,	Mastarm.
Oak Grove avenue, 2d south of Bay street,	Mastarm.
Oak Grove avenue, 1st south of Bay street,	Mastarm.
Oakland street, corner Bloomfield street,	Mastarm.
Oakland street, corner Noel street,	Mastarm.
Oakland street, midway Sumner and Belmont avenues,	Mastarm.
Orange street, between No. 380 and No. 384,	Mastarm.
Orange street, opposite Palm street,	Mastarm.
Orlando street, south line of No. 32,	Mastarm.
Patton street, southwest corner North street,	Mastarm.
Pecousic boulevard, 1st south of York street,	Mastarm.
Pecousic boulevard, 3d south of York street,	Mastarm.
Pecousic boulevard, 2d south of York street,	Mastarm.
Pine street, between No. 247 and No. 257,	Mastarm.
Pine street, near Mill street,	Mastarm.
Ranney street, corner Kensington avenue,	Mastarm.
Ringgold street, about 100 feet from North street,	Mastarm.
Rowland avenue, corner Fisk avenue,	Mastarm.
Sherman street, between No. 24 and No. 30,	Mastarm.
St. James avenue, between Florida and Bowdoin streets,	Mastarm.
St. James avenue, between Bay and Bowdoin streets,	Mastarm.

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Location.	Character.
Sumner avenue, west line of No. 38,	Mastarm.
Tenth street, between No. 125 and No. 127,	Mastarm.
Union street, opposite No. 192,	Mastarm.
Walnut street, junction of Oak street,	Mastarm.
Wason avenue, opposite Birnie avenue,	Mastarm.
White street, corner Webber street,	Mastarm.
Wilbraham road, opposite Waltham avenue,	Mastarm.
William street, between No. 187 and No. 183,	Gooseneck.
Windsor street, about 80 feet from Pine street,	Mastarm.
Total number of arc lights in use November 30, 1911,	1247
Total number of series incandescent lights in use November 30, 1911,	309

NEW SERIES INCANDESCENT LIGHTS INSTALLED IN 1911.

Location.	No. Lamps.	Candlepower.
Bloomfield street,	4	60
Carlisle street,	3	60
Center street, I. O.,	4	60
Chicopee road, between St. James avenue and Carew,	21	60
Dover street,	5	60
Elm street, at river bank,	2	60
Hampshire street, I. O., west of Myrtle street,	2	60
Healey avenue, I. O.,	7	60
Lyons street, I. O.,	1	60
Mason place,	3	60
Massasoit street,	2	60
Maynard street, north of Shattuck avenue,	5	60
Melrose street, 200 feet from Walnut street,	1	60
Noel street,	6	60
Norfolk street, south end,	4	60
Pasadena avenue,	5	60
Quebec street, I. O.,	5	60
Shillingford street,	3	60
South street, I. O.,	1	60
St. James avenue, between Carew and Dry Bridge,	15	60
Union street, between Oak and Walnut streets,	1	60
Warriner avenue,	2	60
Wilbraham road, corner Colonial avenue,	1	60
Woodmont street,	3	60

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POLES CHANGED IN 1911.

Allen street, corner Randall avenue.
Allendale street, north side, midway.
Armory street, east side near Truant school.
Avon place, midway.
Bancroft street, midway Main and North streets.
Bay street, midway Pleasant street and St. James avenue.
Belmont avenue, opposite Walden street.
Belmont avenue, 1st south of Ft. Pleasant avenue.
Belmont avenue, 1st south of Woodside terrace.
Berkshire street, I. O., between Chestnut and Myrtle streets.
Byers street, west side, near Pearl street.
Chestnut street, corner Bemis place.
Chestnut street, opposite Edwards street.
Chestnut street, northwest corner Essex street.
Chestnut street, corner Liberty street.
Chestnut street, corner Ferry street.
Colton street, opposite Quincy street.
Colonial avenue, midway.
Court street, near Water street.
Cortland street, midway.
Dartmouth street, corner Yale street.
Dartmouth street, between St. James avenue and Yale street.
Dorn street, corner Dexter street.
Dover street, south side, midway.
Franklin street, southeast corner Charles street.
Fulton street, opposite John street.
Fulton street, opposite Sargeant street.
Harriet street, between North and Chestnut streets.
Ingersoll Grove, between McKnight glen and Worthington street.
King street, between Walnut and Hancock streets.
Lebanon street, corner Merrick street.
Liberty street, opposite Cass street.
Liberty street, northeast corner Charles street.
Liberty street, southeast corner Armory street.
Lowell street, near west end.
Lyman street, corner Chestnut street.
Lyman street, east of Chestnut street.
Main street, I. O., between Pine and Cedar streets.
Myrtle street, I. O., corner Hampden street.

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Myrtle street, I. O., corner Berkshire street.
North Main street, north of Wason avenue.
Oak street, I. O., corner Essex street.
Oakland street, corner Bloomfield street.
Parkwood street, midway.
Pine street, near George street.
Richelieu street.
Sharon street, 1st west of North street.
Sherman street, between State and McKnight streets.
State street, corner Water street.
State street, 1st east of Byers street.
State street, corner Cortland street.
St. James avenue, corner Princeton street.
Summer street, between Autumn and Spring streets.
Tyler street, between Eastern avenue and Hancock street.
Vernon street, 1st from Water street.
Vinton street, east side, midway.
Wilbraham avenue, corner King street.
Wilbraham road, corner Bristol street.
Willow street, corner Stockbridge street.

STOCK ON HAND, NOT IN USE, DECEMBER 1, 1911.

12	goosenecks,	$144 00
3,000	feet mastarm cable,	60 00
1	derrick,	126 00
1	creosote kettle,	144 00
12	mastarms,	120 00
4,000	charts for recording meters,	19 48
180	chestnut poles, 25 feet,	1,215 00
1	chestnut pole, 30 feet,	10 00
1	chestnut pole, 35 feet,	12 00
100	pine poles,	625 00
35	hard pine tops,	166 25
12	iron base poles,	198 00
400	pole steps,	14 50
530	detachable pole sockets,	26 50
24	detachable pole steps,	6 72
	Pulleys and ropes,	10 00
34	gross screws,	12 30
	Mastarm repair parts,	189 00

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	Ladders,	$4 00
750	coach screws,	11 25
20	iron cross arms,	35 00
195	spreaders for mastarms,	48 70
21	insulators,	8 00
2	tons coal,	11 42
	Hay and oats,	14 50
	Auto supplies,	40 00
1	gross snaps,	8 60
20	Boston gooseneck cutouts,	60 00
2	barrels creosote,	12 00
1	barrel carbolineum,	39 20
	Total,	$3,391 42

PROPERTY IN USE, DECEMBER 1, 1911.

158	iron poles, with goosenecks, complete,	$6,358 59
1,089	lamp poles,	5,956 85
1,011	mastarms,	12,339 00
3	harnesses,	15 00
1	concord wagon,	35 00
1	heavy business wagon,	100 00
1	light business wagon,	50 00
1	reach wagon,	25 00
1	pole truck,	20 00
1	business sleigh,	20 00
1	light sleigh,	12 00
	Blankets, robes, etc.,	10 00
1	horse,	300 00
	Storehouse and sheds,	600 00
18	recording ampere meters,	687 00
1	portable volt meter,	61 65
1	portable ampere meter,	48 60
	Miscellaneous tools,	95 00
1	touring car,	300 00
	Office furniture,	88 10
	Total,	$27,121 78
	Total stock, not in use, December 1, 1911,	3,391 42
	Total,	$30,513 20

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CITY OF SPRINGFIELD.

FORM OF CONTRACT BETWEEN CITY OF SPRINGFIELD, MASS., AND UNITED ELECTRIC LIGHT CO., FOR LIGHTING STREETS, MADE IN 1909.

This agreement, made this twenty-second day of March, 1909, by and between the City of Springfield, a municipal corporation established in the county of Hampden, hereinafter called the party of the first part, and the United Electric Light Company, a corporation established by law in the city of Springfield, in said county, and hereinafter called the party of the second part, witnesseth:—

The said party of the second part, in consideration of the agreement of the party of the first part hereinafter contained, and of other valuable considerations by it received of the party of the first part, hereby covenants and agrees with the party of the first part as follows: That it will furnish and operate for, and during the period of FIVE years, beginning on the first day of May, A. D. 1909, arc electric lamps to the number of not less than 1,000, known as "350 watt, 1,200 candle power lamps"; and series incandescent lamps to the number of not less than seventy-five, known as "60 candle power lamps"; the party of the second part to supply each incandescent lamp with sufficient current to maintain a lamp of said rated candle power and to furnish and maintain all wire-supporting poles, electrical apparatus, fixtures and accessories thereto, required for the safe and efficient operation of said lamps, in such parts of the city as lie within a radius of four miles from a point where the southerly line of Court Street intersects the westerly line of Main Street; and lamps that are or may be located in that part of the city known as Indian Orchard, which shall be within a radius of three miles of the power house of the party of the second part at Indian Orchard, and at such particular locations as the City Council may direct; these lamps to be suspended or supported upon posts, as the Committee on Lighting Streets may determine; and that during said period it will provide, clean and care for said lamps, repair and paint all the apparatus and fixtures referred to above, furnished and owned

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by said party of the second part, and paint the lamp-supporting poles and mast arms owned by the party of the first part, in strict conformity with the following conditions, which are made a part of this agreement.

The party of the first part hereby agrees to furnish and keep in repair all arc lamp-supporting poles and mast arms, excepting painting the lamp-supporting poles and mast arms properly equipped and placed in position to receive the apparatus and appurtenances thereto of the party of the second part; and it also shall give to the party of the second part, authority to erect and maintain all necessary poles for supporting its wires on all streets where lamps are established by the party of the first part for lighting the streets. Whenever the party of the first part shall change any top light, so-called, to a mast arm light, the party of the second part shall furnish the necessary additional wiring without expense to the party of the first part. For the 60 candle power series incandescent lamps, the party of the second part will provide and maintain, including painting and all repairs, octagonal wooden poles and suitable iron fixtures. In any section where a more ornamental pole and fixture is desired, the same shall be furnished by the party of the first part.

CONDITIONS.

Light Giving Power.

The light giving power of the lamps shall be determined by the electrical energy expended at the lamp; it being understood that not less than three hundred and fifty watts is to be furnished each arc lamp.

Hours of Lighting.

The lamps are to be operated continuously each and every night during the continuance of this agreement. They are to be started thirty minutes after sunset, and kept in operation until thirty minutes before sunrise. The time of sunset and sunrise, for the purpose of this contract, shall be determined by the Old Farmer's Almanac.

Carbons.

These shall be of the best quality for and best adapted to street lighting, and of the size adapted to the current used, and must burn uniformly and give a clear and steady light.

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Globes.

These shall be of clear glass, unless otherwise ordered by said committee, and shall be free from lettering; of best quality and proper shape, to avoid casting rings or streaks of light and shadow, and shall be kept clean to the satisfaction of said committee. Any globes that may become broken shall be replaced by sound ones each day before starting the lights; if not, said light shall be considered as out, and the outage shall be deducted. If the said committee shall request any of the globes changed, such change shall be made at once.

Location of Lamps.

The position, manner of hanging, height above pavements, and number of lamps for any locality, as well as their location, shall be determined by the party of the first part, acting by said committee.

Apparatus.

The lamps, wires, and other conductors shall be thoroughly insulated and so placed and cared for as not to expose the public or property to danger, or to unnecessarily interfere with the work of the fire department in case of fire.

In case the Committee on Lighting Streets shall decide that any of the wire-supporting poles, or apparatus connected therewith, require repairing, owing to an unsightly or dangerous condition, the same shall be repaired at once, and within twenty-four hours of notice from said committee; and if not so repaired, said committee may make the repairs, and the expense thereof may be deducted from any amount due the party of the second part.

The members of the police department may report daily to the city the hours when lamps are started and the hours when they are extinguished, and may report the length of time that any lamps fail to burn.

Inspection.

The party of the second part agrees at its own expense to maintain an efficient system of patrol for inspecting the lamps during the hours when they are in use, so that any lamp which fails to burn properly shall be promptly reported and put in order, or immediately replaced. For this inspection a sufficient number of men shall be employed to admit of an examination of each lamp at least twice

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each night, and the said party of the second part shall instruct its inspectors to so inspect each lamp each night, and shall use all reasonable effort to secure such inspection.

It is further understood and agreed that the superintendent of street lighting of the party of the first part is authorized to make such tests to determine the electrical current supplied under this contract as he may deem necessary; and that the said superintendent, or such persons as may be authorized by the committee, shall, for the purpose of making tests, have full access at all times to all lamps, poles, conduits, apparatus, or machinery used by the said company on the streets or at their stations for furnishing lights for the city; and that the party of the second part shall furnish space at their stations for such recording meters as the committee shall provide.

It is further understood and agreed that should any two tests, made as herein provided, show in any one month a smaller amount of electrical energy in any circuit in the service of said city than is called for by this contract, then the said city may deduct from any sum due the said company, such proportional part of the sum due said company for lights furnished during the current month, as the deficiency found by such tests shall bear to the standard of electrical energy herein established.

Indemnity Clause.

The party of the second part shall indemnify and save harmless the party of the first part from any and all liability, loss, cost, or damage that it may suffer by reason of any infringement suits, and from any and all liability for injury to persons or property (and from all damages of any sort) resulting from defective insulation; or from defective poles, fixtures or apparatus belonging to the party of the second part. It is, also, to save said party of the first part harmless from liability to any party resulting from the carelessness or negligence of the employees of the party of the second part in operating the same, provided any accident does not result from any defect in any pole or fixtures connected therewith owned by the party of the first part.

Allowances to be Made.

In case the light-giving power of any of the lamps shall be less than called for herein, payment shall only be made for the actual

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current furnished; the amount to be paid to be based pro rata upon the amount called for if the current were equal to that required hereby; but this shall not imply a right to continue to furnish lights under this contract at a reduced current. In case any of the lamps are not lighted as early as required by this contract, or are extinguished prior to the time established for the extinguishment thereof, or in case any of them shall be extinguished during the time they ought to burn, then payment shall not be made for the time such lamps are not lighted, when they should be, and a pro rata allowance shall be made therefor. Any amount that shall be due the party of the first part under the provisions of this clause of the contract, shall be deducted out of any money that may be payable to the party of the second part.

Additional Lights.

In case any lights in addition to those herein provided for shall be required by the city within said districts, the same shall be furnished and maintained on the same terms and conditions as those herein provided.

The numbers of lamps on any one circuit shall not exceed the number which the generator for such circuit is rated to run, and such generators shall deliver the proper current for all lamps.

Terms of Payment.

In consideration of the agreement of the party of the second part hereinbefore contained, the party of first part agrees that it will, subject to any and all rights it has or may have under any of the terms and conditions of said agreement, pay said party of the second part for all lamps rated 1,200 candle power that are or shall be located along conduits and fed by wires therefrom, *Eighty-three Dollars* per lamp per year; for all other lamps rated 1,200 candle power, *Seventy-one and* $\frac{50}{100}$ *Dollars* per lamp per year; and for all lamps rated as 60 candle power series incandescent electric lamps, *Fifteen Dollars* per lamp per year. It is agreed that whenever an arc lamp fed by overhead wires shall be changed to one fed from a conduit, the increased price resulting therefrom shall not take effect until the first day of May following. It is hereby expressly agreed that the foregoing prices to be paid for incandescent lamps are based upon the understanding that the incandescent lamps referred to shall be located on existing street arc lighting circuits; and if not so

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located and the party of the second part construct conduits therefor, then for all incandescent lamps located on and fed from said last named conduits, the party of the second part shall receive *Twenty Dollars* each for said last named incandescent lamps. Payment is to be made monthly for the service of the preceding months on vouchers duly approved under the ordinances of the city; all payments to be made at the Treasurer's office; that in case, on the expiration of this contract, a new contract is not entered into with the party of the second part to light the streets of the city, any company to whom such new contract shall be awarded shall purchase of the party of the second part, if the party of the second part desires to sell, the supporting poles, wires, conduits, and electrical apparatus and accessories thereto, owned by it and used in carrying out the terms hereof; said purchase to be at a price to be determined by three appraisers; one to be appointed by the party of the second part; one by the purchaser, and the third by the two so chosen; and in case the city shall engage in the business of lighting its streets, on the expiration of this contract, said city shall take said property on the same terms.

It is agreed by the party of the first part that the party of the second part shall not be required to furnish incandescent lamps hereunder, except on existing arc street lighting circuits and extensions thereof, and that such lamps shall be so located as not to require more than 300 feet of wires leading from a conduit, or over 300 feet of pole line material for each lamp.

In witness whereof, the parties hereto, by their duly authorized representatives, have executed this agreement in duplicate the day and year first above written.

Attest: E. A. NEWELL, *City Clerk.*

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CITY OF SPRINGFIELD.

FORM OF CONTRACT BETWEEN CITY OF SPRINGFIELD, MASS., AND UNITED ELECTRIC LIGHT CO., FOR LIGHTING CITY BUILDINGS, MADE IN 1909.

This agreement, made this twenty-ninth day of March, 1909, by and between the City of Springfield, a municipal corporation established in the county of Hampden, hereinafter called the party of the first part, and the United Electric Light Company, a corporation established by law in the city of Springfield, in said county, and hereinafter called the party of the second part, witnesseth:—

(1) The said party of the second part, in consideration of the agreement of the party of the first part, hereinafter contained, and of other valuable considerations by it received of the party of the first part, hereby covenants and agrees, subject to Clause 6 hereof, with the party of the first part, as follows:—

That it will furnish electricity, during the period of five years, beginning on the first day of May, 1909, for lighting and power purposes in the several buildings now owned and to be erected by the City of Springfield, on the following basis:—

(2) The said party of the second part will supply electricity to be used for lighting city buildings at any point within the city limits at a rate of *Seven* (7) *Cents* per kilowatt hour, to be delivered at and measured by meter. The original supply of carbon lamps of standard candle power and all renewals of same to be supplied by the party of the second part.

(3) The said party of the second part will supply electricity to be used for power purposes in city buildings at any point within the city limits, at a rate of *Three* (3) *Cents* per kilowatt hour, to be delivered at and measured by meter. All apparatus operating on this class of service to be supplied and maintained by the party of the first part.

(4) The party of the first part shall give to the party of the second part authority to erect and maintain all necessary poles for

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supporting wires, which will be needed to transmit current to the buildings where service is demanded.

(5) The party of the second part shall not be required by the party of the first part to install conduits and cables or erect poles and wires to supply service, unless the income per year to be received from the party of the first part by the party of the second part shall equal at least ten per cent. of the money expended for such connection.

(6) In case the said United Electric Light Company shall, because of shortage of water, or unavoidable accident to machinery, or other accident of any kind, find itself unable to meet any of the demands made upon it for electricity for any purpose for which it may at any time be supplying the same, under the terms of this contract, so that it is necessary to temporarily discontinue the supply of electricity to be furnished hereunder, it may so discontinue the same without liability.

In witness whereof, the parties hereto, by their duly authorized representatives, have executed this agreement in duplicate the day and year first above written.

Attest: E. A. NEWELL, *City Clerk.*

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CITY CLERK'S REPORT.

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CITY CLERK'S REPORT.

CITY CLERK'S OFFICE, MUNICIPAL BUILDING.

January 1, 1912.

To the City Council of the City of Springfield:—

I herewith submit the following report for the year ending November 30, 1911.

The amount of fees received by me for official services, from December 1, 1910, to December 1, 1911, is as follows, said sum having been paid by me to the City Treasurer:—

For marriage certificates	$1,083 00
Copies of record	129 30

For recording and indexing the following papers:—

Mortgages on personal property	$337 15
Discharges of mortgages	55 25
Assignments of mortgages	14 50
Attachments of personal property	1 00
Bills of sale	13 60
Notices of foreclosure	3 70
Note	25
Married women's certificates	12 75
Leases	1 85
Voluntary assignments	19 00
Recording and indexing dog licenses	480 40
Recording assignments	29 70
Foreclosure of pledge	50
Witness fee	60
Conditional sales	90
Interest	27 05
Discharge of married women's certificates	75
Amount carried forward,	$2,211 25

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Amount brought forward,	$2,211 25
Kerosene certificates	2 00
Notice	45
Notice of sale of note	25
Power of attorney	25
Agreement	65
Fence viewers	65
Express licenses	178 00
Notice of money found	25
Assignment of lease	25
	$2,394 00

In addition to the above, there has been received for applications for pool table licenses $74.00, and the sum of $48.12 has been paid for advertising said applications, leaving a balance of $25.88, which has been paid to the City Treasurer. There has also been paid to the County Treasurer the sum of $5,282.60, being the amount due the County of Hampden for dog licenses, less fees for recording, from December 1, 1910, to December 1, 1911. The sum of $1,203.00, amount due for 4 hunters' licenses at $15.00 each and 1,143 at $1.00 each, has been paid to the State.

E. A. NEWELL, *City Clerk.*

SPRINGFIELD, MASS., January 1, 1912.

I hereby certify that the foregoing report of the City Clerk is correct, as per his records and receipts on file in his office.

W. C. MARSH,

Auditor of Accounts.

The number of marriage intentions filed during the year is	1,105
The number of marriages for the year is	1,272
The number of deaths for the year is	1,663
The number of births for the year is	2,800

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VOTERS AND REGISTRATION.

The following table shows the number of men and women who registered as voters in 1910 and 1911:—

1910.					1911.				
Ward.	Precinct.	Men.	Women.	Total.	Ward.	Precinct.	Men.	Women.	Total.
1	A	42	1	43	1	A	24		24
1	B	43	2	45	1	B	37		37
1	C	50	2	52	1	C	34	1	35
1	D	32		32	1	D	43		43
1	E	54		54	1	E	30		30
2	A	53		53	2	A	61		61
2	B	30		30	2	B	56		56
3	A	43		43	3	A	36	1	37
3	B	54	2	56	3	B	37		37
4	A	59	2	61	4	A	58		58
4	B	56	13	69	4	B	62	3	65
5	A	37	8	45	5	A	45		45
5	B	40	2	42	5	B	41		41
6	A	40		40	6	A	26	1	27
6	B	62	2	64	6	B	39		39
7	A	24		24	7	A	12	1	13
7	B	51	5	56	7	B	32	1	33
7	C	61		61	7	C	53		53
7	D	58	1	59	7	D	48	2	50
8	A	57	4	61	8	A	72	1	73
8	B	58	2	60	8	B	54	6	60
8	C	74		74	8	C	59		59
		1,078	46	1,124			959	17	976

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The following table shows the number of assessed polls and the number of men and women on the voting list at the city election December, 1910 and 1911:—

1910.					1911.				
Ward.	Precinct.	Assessed Polls.	Men.	Women.	Ward.	Precinct.	Assessed Polls.	Men.	Women.
1	A	881	504	2	1	A	948	478	1
1	B	933	658	8	1	B	944	654	8
1	C	1,011	572	11	1	C	1,095	604	9
1	D	774	513	2	1	D	926	568	
1	E	919	603	4	1	E	1,042	621	5
2	A	1,302	700	2	2	A	1,243	646	2
2	B	2,088	581	3	2	B	1,544	489	3
3	A	906	404	5	3	A	740	372	4
3	B	1,008	490	3	3	B	950	442	3
4	A	1,342	724	24	4	A	1,361	700	22
4	B	1,340	951	54	4	B	1,358	932	50
5	A	1,069	801	45	5	A	1,059	800	44
5	B	1,237	773	15	5	B	1,185	733	12
6	A	1,180	460	2	6	A	1,226	436	3
6	B	1,342	799	18	6	B	1,420	776	15
7	A	762	485	7	7	A	793	484	6
7	B	1,091	785	26	7	B	1,121	792	25
7	C	1,179	841	5	7	C	1,373	944	5
7	D	1,106	851	33	7	D	1,185	892	34
8	A	1,366	850	15	8	A	1,525	909	14
8	B	1,234	854	20	8	B	1,330	897	27
8	C	1,715	679	3	8	C	1,768	685	3
		25,785	14,823	307			26,286	14,849	295

Respectfully submitted,

E. A. NEWELL, *City Clerk*

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BOARD OF ALDERMEN, January 1, 1912.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, January 1, 1912.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, January 2, 1912.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., January 2, 1912.

Approved.

EDWARD H. LATHROP, *Mayor.*

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JURY LIST.

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CITY OF SPRINGFIELD.

LIST OF JURORS, 1911.

NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Abbe, Fred A.,	382 Hancock st.,	Flour and Feed Merchant, 488 Mill st.
Ackerman, Guy O.,	38 Bryant st.,	Advertising Man, 38 Bryant st.
Adams, Bernal H.,	36 Armory st.,	Bookkeeper, 216 Worthington st.
Adams, Charles,	30 Dover st.,	Florist, 44 Dover st.
Adams, Charles F.,	50 Walnut st.,	Druggist, 54 Walnut st.
Adams, George F.,	31 Maple st.,	Banker, 464 Main st.
Adams, George T.,	248 Pearl st.,	Bookkeeper, 338 Worthington st.
Adams, Robert W.,	167 Maple st.,	Provision Merchant, 20 Sanford st.
Adams, Walter,	44 Dover st.,	Florist, 44 Dover st.
Adams, William H.,	191 Main st., I. O.,	Clerk, 192 Main st., I. O.
Aitken, Mark,	Glen road,	Florist, 378 Main st.
Albee, Julian R.,	29 Irvington ave.,	Laundryman, 870 State st.
Albro, Henry L.,	377 St. James ave.,	Traveling Salesman, 49 Lyman st.
Alden, Arthur O.,	21 Clifton ave.,	Piano Tuner, 389 Main st.
Alderman, Harry M.,	136 Firglade ave.,	Clerk, 48 Harrison ave.
Alderman, Oliver C.,	39 Mountainview st.,	Merchant, 272 Main st.
Aldrich, Arthur,	49 Bridge st.,	Night Foreman, 121 Bridge st.
Aldrich, Edward W.,	98 Elliott st.,	Mason, 98 Elliott st.
Alexander, Alexander,	501 Belmont ave.,	Buyer, 390-396 Main st.
Allbe, Charles A.,	53 Stebbins st.,	Plumber, 24 Willow st.
Allen, Albert W.,	52 Spruce st.,	Manufacturer, 30 Taylor st.
Allen, Henry L.,	51 Winthrop st.,	Button Maker, Foot of Howard st.
Allen, J. Clarence,	79 Princeton st.,	Dentist, 492 Main st.
Allen, Joseph C.,	38 Rutledge ave.,	Actuary, 407 Main st.
Alstrom, Icilius T.,	268 Sumner ave.,	Retired.
Alvord, Edward B.,	77 Bowles st.,	Collector, 852 State st.
Ambrose, Bryan F.,	15 Nelson ave.,	Foreman, 58 Harrison ave.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION
Amidon, Edgar H.,	49 Bristol st.,	Bookkeeper, Cor. Water and Fort sts.
Anderson, Fred,	32 Montmorenci st.,	Steel Fitter, White st.
Anderson, Willis F.,	202 Belmont ave.,	Automobile Business, 40 Liberty st.
Anderton, Henry,	191 Carew st.,	Grocer, 65½ Butler st.
Angell, Ethan T.,	318 No. Main st.,	Foreman Holyoke Card & Paper Co., Brightwood.
Anthony, Charles,	26 Harriet st.,	Cigar Maker, 258 Main st.
Appleton, Allen L.,	334 Maple st.,	Purchasing Agent, Wason ave. and Birnie ave.
Arnold, Willis C.,	84 Monmouth st.,	Electrical Engineer, 17 Taylor st.
Aronstam, Joseph,	35 Tenth st.,	Clothier, 91 Water st.
Ashley, George M.,	33 Arch st.,	Cigar Business, 15 Lyman st.
Atherton, Frank H.,	53 Greenwich st.,	Freight Agent, Boston & Maine R. R.
Atkins, Charles P.,	401 Chestnut st.,	Printer, 135 Dwight st.
Atkins, Percy B.,	190 Thompson st.,	Traveling Salesman, Cor. Cross and Willow sts.
Atkinson, James H.,	67 Alden st.,	Cabinet Maker, 349 and 359 Main st.
Atwood, Felix B.,	116 Spring st.,	Foreman, 318 Main st.
Augur, Harry M.,	50 Allendale st.,	Clerk, 425-427 Main st.
Avery, Robert C.,	101 Quincy st.,	Machinist, 837 State st.
Babcock, Frank,	85 Elliott st.,	Foreman, Foot of Howard st
Bailey, Fred P.,	98 Alderman st.,	Variety Molder, 850 State st.
Bailey, Irwin B.,	359 Central st.,	Wheelwright, 16 Hickory st.
Baker, Edmund K.,	192 Maple st.,	President Hampden Paint & Chemical Co., Armory st.
Baker, Frank H.,	57 Pomona st.,	Com. Traveler, H. W. Clark Biscuit Co., No. Adams, Mass.
Baker, William A.,	53 Bond st.,	Painter, 374 Main st.
Baker, William G.,	58 Seventh st.,	Merchant, 226 Main st.
Ball, Lewis J.,	353 Hancock st.,	Grocer, 140 State st.
Bangs, John C.,	17 Church st.,	Bookkeeper, Northampton Bank.
Barlow, Seth H.,	80 Dartmouth st.,	Real Estate Broker, 163 Spring st.
Barnes, Frank M.,	34 Calhoun st.,	Agent, 26-30 Taylor st.
Barnstead, Charles E.,	11 Hebron st.,	Machinist, None.
Barnett, Morris H.,	172 Thompson st.,	Cigar Manufacturer, 309 Main st.
Barrett, Albert W.,	62 Bancroft st.,	Tool Maker, Stockbridge st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Barrett, Thomas J.,	74 Alexander st.,	Printer, 135 Dwight st.
Barrett, Walter M.,	71 Lyndale st.,	Gas Fitter, West State st.
Barrus, Clifton L.,	62 Osgood st.,	Milk Dealer, 62 Osgood st.
Barrus, George A.,	66 Pynchon st.,	Traveling Salesman, 310 Main st.
Barthelmes, Oscar L.,	174 Hancock st.,	Machine and Tool Maker, Stockbridge st.
Bartlett, Chauncey I.,	28 John st.,	Carpenter, Boston & Maine R.R.
Bartlett, John L.,	510 Union st.,	Druggist, 245 Bay st.
Bartlett, Owen J.,	24 Prince st.,	Salesman, Cor. Lyman and Spring sts.
Bartlett, William C.,	28 Grenada terrace,	Merchant, 53 Cypress st.
Barton, Robert,	29 Bedford road,	Clerk, 500 Main st.
Bashaw, Edward J.,	55 Sheldon st.,	Proprietor, 234½ Main st.
Bassett, William A., Jr.,	317 Orange st.,	Inspector, 23 State st.
Bassette, Frederick A.,	167 Thompson st.,	Printer, Cor. Hillman and Dwight sts.
Bassin, Max,	31 Clinton st.,	Clothier, 118 Main st.
Beach, Howard F.,	135 Oakland st.,	Milk Dealer, 135 Oakland st.
Beahn, James F.,	14 Grosvenor st.,	Mason, 14 Grosvenor st.
Beals, James S.,	321 Wilbraham road,	Grain Dealer, 194 Lyman st.
Beamon, William A.,	48 Auburn st.,	Advertising, 48 Auburn st.
Beany, William J.,	136 Main st.,	Bookkeeper, 166 Main st., I. O.
Beardsley, Charles T.,	37 Bancroft st.,	Carpenter, Fisk Rubber Co., Chicopee Falls.
Bearg, Benjamin,	46 Huntington st.,	Tailor, 157 Main st.
Beaudry, Alfred J.,	39 Quincy st.,	Organ Maker, Howard Organ Co., Westfield, Mass.
Beebee, Frederick Graham.	166 State st.,	Drug Clerk, 530 Main st.
Belden, Allen M.,	104 Alden st.,	Milk Dealer, 104 Alden st.
Belding, Everett E.,	15 Edwards st.,	Shoe Findings, 47 Lyman st.
Belding, William C., Jr.,	135 Westminster st.,	Grocer, 453-455 State st.
Bellamy, Thomas A.,	116 Patton st.,	Machinist, N. Y. C. Shop, West Springfield.
Bellows, Charles W.,	38 Margaret st.,	Mechanic, Stevens Duryea, Chicopee Falls.
Bellows, Harry A.,	175 Bowdoin st.,	Collector, Foot West State st.
Bemis, Charles A.,	31 Northampton ave.,	Clerk, 30 Lyman st.
Benchley, Frank E.,	421 Bay st.,	Printer, Cor. Willow and Cross sts.
Bennett, Albert E.,	53 Winthrop st.,	Clerk, 16 Sanford st.
Bergdoll, Frederick,	22 Vinton st.,	Paper Cutter, Warwick ave.
Besse, Lyman W.,	29 Ingersoll grove,	Gents' Furnishings, 21 Besse place.
Bicknell, Fred A.,	173 Walnut st.,	Gas Fitter, 173 Walnut st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Bigelow, John P.,	W. S. Harvey st.,	Paper Hanger, W. S. Harvey st.
Bigelow, William D.,	624 State st.,	Insurance Broker, 195 State st.
Bill, Nathan D.,	284 Maple st.,	Retired.
Bill, Raymond R.,	66 Dartmouth st.,	Manager, 33 Morris st.
Bills, Frank E.,	607 Chestnut st.,	Foreman, Cor. Heywood ave. and Warwick ave.
Birnie, Donald,	38 Madison ave.,	Manufacturer, Birnie ave. and Douglas st.
Birnie, Walter,	35 Ridgewood ter.,	Paper Manufacturer, Cor. Birnie ave. and Douglas st.
Birnie, William P.,	34 Sterns ter.,	Manufacturer, Cor. Birnie ave. and Douglas st.
Blague, Giles,	20 Lafayette st.,	Clerk, 500 Main st.
Blair, Atkins E.,	66 School st.,	Merchant, 16-20 Sanford st.
Blanchard, Norman E.,	29 Warriner ave.,	Pistol Maker, Stockbridge st.
Blanden, Henry H.,	457 Central st.,	Grocer's Clerk, Main and Wilcox sts.
Blodgett, Andrew, Jr.,	70 Westford ave.,	Salesman, Cor. Lyman and Chestnut sts.
Blodgett, Charles A.,	128 Maplewood ter.,	Shoe Dealer, 201 Worthington st.
Blodgett, Edwin A.,	10 Ingraham ave.,	Lumber Merchant, 75 Albany st.
Blodgett, Samuel H.,	304 Central st.,	Traveling Salesman, Brewer & Co., Worcester, Mass.
Blot, Lucien P.,	414 No. Main st.,	Foreman, 336 Birnie ave.
Boecklen, Thomas H.,	28 Acushnet ave.,	Lithographer, Cor. Cross and Willow sts.
Bolter, Edwin A.,	60 Ringgold st.,	Machinist, Stockbridge st.
Booth, William H.,	34 Murray Hill ave.,	Machinist, Hampden Screw Co., Birnie ave.
Bowler, James F.,	336 Eastern ave.,	Contractor and Polisher, South st.
Bowler, John J.,	328 Eastern ave.,	Cigar Maker, 309 Main st.
Bowles, Charles A.,	81 Mulberry st.,	Paper Stock Dealer, 317 Main st.
Bowles, Samuel,	Crescent ave.,	Publisher, 381 Main st.
Bowman, George W.,	83 Elm st.,	Electrician, 531 Main st.
Bowman, Henry N.,	74 Jefferson ave.,	Newspaper Work, 292 Main st.
Bradley, Walter A.,	17 Spruce st.,	Mechanic, Stockbridge st.
Bragg, Benjamin L.	79 Mapledell st.,	Real Estate and Fire Insurance. 432 Main st.
Bragg, Frederick A.,	54 Oak Grove ave.,	Dentist, 342 Main st.
Brennan, Frederick W.,	176 Pendleton ave.,	Undertaker and Funeral Director, 124 Bridge st.
Brewer, Oscar C.,	31 Spruce st.,	Paper Hanger, At Home.
Brick, Edward G.,	121 Pineywoods ave.,	Manager, 307 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Broughal, Richard E.,	63 Bridge st.,	Undertaker, 61 Bridge st.
Broughall, Thomas F.,	142 Patton st.,	Undertaker, 61 Bridge st.
Brown, Charles F.,	66 Mapledell st.,	Commercial Traveler, 51 Market st.
Brown, Frank A.,	224 Main st.,	Retired Ticket Agent.
Brown, Franklin D.,	75 Hampden st., I. O.,	Machinist, Worcester st., I. O.
Brown, George K.,	16 Worcester ave.,	Carpenter, Wason Mfg. Co., Brightwood.
Brown, Kirk H.,	47 Mattoon st.,	Collector, All About the City.
Brown, Nedd W.,	86 Mill st.,	Salesman, 21 Elm st.
Brownell, Edward C.,	42 Wilbraham ave.,	Coal Dealer, 82 Waltham ave.
Bryan, James A.,	263 Union st.,	Clerk, 500 Main st.
Bryant, Eleazer,	82 Greene st.,	Wood Turner, 850 State st.
Buchholz, Oscar H.,	40 Locust st.,	Costumer, 275 Main st.
Buck, Frank C.,	59 Princeton st.,	Clerk, 283 Worthington st.
Buckler, Alfred E.,	487 Belmont ave.,	Dealer in Real Estate, 356 Belmont ave.
Buckley, Hugh J.,	71 Avon place,	Real Estate Broker, 500 Main st.
Bugbee, Eugene M.,	24 Crosby ave.,	Carriage Painter, Cor. Hancock and Hickory sts.
Bullard, Edwin W.,	101 Oak st.,	Machinist, 12 Willow st.
Bullard, Glenn M.,	9 Florence st.,	Clerk, Fiberloid Co., I. O.
Burdick, Arthur,	424 Central st.,	Candy Maker, 37 Harrison ave.
Burdick, H. Elmer,	52 Mattoon st.,	Optician, 433 Main st.
Burlingame, Frederick R.	74 Patton st.,	Commercial Traveler, Cor. Lyman and Dwight sts.
Burnett, Willis E.,	60 Spring st.,	Music Teacher, 786 State st.
Burnham, Erastus D.,	104 Buckingham st.,	Lumber Merchant, South Windsor, Ct.
Burnham, Robert D.,	681 Sumner ave.,	Traveling Salesman, S. P. Porter & Sons, N. Y.
Butler, Arthur,	178 Wason ave.,	Foreman, Brightwood Rendering Co.
Butler, Charles B.,	87 Buckingham st.,	Traveling Salesman, S. M. Butler Co.
Butler, Frank M.,	27 Sargeant st.,	Merchant, 67 Lyman st.
Butler, Richard T.,	155 Bay st.,	Insurance Adjuster, 307 Main st.
Button, Frederick G.,	509 Belmont ave.,	Dealer in Lumber and Real Estate, 310 Main st.
Byrne, Edward P.,	699 Belmont ave.,	Civil Engineer, 17 Hampden st.
Byrne, Mathew J.,	25 Brookline ave.,	Clerk, 376 Main st.
Byron, Ernest A.,	18 Winthrop st.,	Undertaker, 18 Winthrop st.
Byron, Napoleon L.,	18 Winthrop st.,	Undertaker, 18 Winthrop st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Cadwell, Charles A.,	185 Belmont ave.,	Undertaker, 792 State st.
Cady, Byron E.,	26 Grosvenor st.,	Cigar Dealer, 26 Grosvenor st.
Cady, William S.,	26 Grosvenor st.,	Cigar Maker, 26 Grosvenor st.
Caldwell, Winford N.,	20 Ridgewood place,	Paper Manufacturer, Holyoke.
Call, Arthur A.,	29 Locust st.,	Grocer, 144 State st.
Call, Charles C.,	18 Greene st.,	Contractor and Machinist, Stockbridge st.
Call, Raymond A.,	18 Greene st..	Music Teacher, 18 Greene st.
Calnan, John J.,	289 Belmont ave.,	Printer, 305 Worthington st.
Calnen, Thomas,	47 Hebron st.,	Bridge Builder, 47 Hebron st.
Campbell, Daniel W.,	20 Abbe ave.,	Sanitary Inspector, 20 Abbe ave.
Canty, John K.,	56 Roseland st.,	Shipper, Fisk ave.
Carey, Thomas E.,	25 Margaret st.,	Printer, 285 Main st.
Carman, Julius F.,	266 Belmont ave.,	Grocer, 597 Main st.
Carmody, Frank C.,	373 Armory st.,	Steam Fitter, 37 Lyman st.
Carpenter, William H.,	199 Sumner ave.,	Dealer in Real Estate, 31 Lyman st.
Carney, John J.,	15 Cleveland st.,	Butcher, 84 Main st.
Carr, John,	49½ Main st.,	Laborer, B. & A. R. R., West Springfield.
Carrigan, William H., Jr.,	112 Greenwood st.,	Shipping Clerk, 142 Lyman st.
Carroll, Edward,	55 Manhattan st.,	Stone Cutter, Holyoke, Mass.
Carroll, Michael J.,	486 Hancock st.,	Secretary and Treasurer, 54 Taylor st.
Carroll, William T.,	104 Cleveland st.,	Stock Clerk, 312 Birnie ave.
Carter, Herbert W.,	116 Mulberry st.,	Merchant, 233 Worthington st.
Case, Adelbert B.,	Round Hill,	Manufacturer, 312 Birnie ave.
Casey, John,	55 Grosvenor st.,	Stone Mason, Liberty st.
Castle, Clifford DeW.,	210 Maple st.,	Importer, 49 Lyman st.
Chamberlin, Arthur L.,	787 Main st.,	Insurance Agent, 500 Main st.
Chamberlin, George H.,	53 Firglade ave.,	Shipping Clerk, Stockbridge st.
Chamberlin, Willis G.,	33 Salem st.,	Bookkeeper, 34 Sanford st.
Chapin, Frank M.,	57 Jefferson ave.,	Foreman, 393 Main st.
Chapin, Henry G.,	353 Maple st.,	Paper Manufacturer, Russell, Mass.
Chapin, Horatio T.,	257 Chestnut st.,	Foreman, 121 Bridge st.
Chapin, Louis W.,	15 Oak Grove ave.,	Musician, 15 Oak Grove ave.
Chapman, Albert G.,	1102 State st.,	Foreman, Heywood ave.
Chapman, Harvey,	138 Bay st.,	Hardware Merchant, 141 Lyman st.
Chase, Charles P.,	572 Belmont ave.,	Dealer in Lumber, 68 Birnie ave.
Chauncey, Byron A.,	98 Florence st.,	Clerk, Cypress st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Childs, Robert P.,	31 Elliott st.,	Rubber Stamp Mfg., 321 Main st.
Clark, Charles K.,	188 Walnut st.,	Saw Tester, Chicopee, Mass.
Clark, Clarence O.,	33 Edwards st.,	Bookkeeper, 225 Liberty st.
Clark, Edward A.,	403 Maple st.,	Paymaster, Holyoke.
Clark, Edward R.,	49 Hooker st.,	Automobile Dealer, 461 Worthington st.
Clark, George H.,	315 Chestnut st.,	Plumber, 19 Worthington st.
Clark, Harry W.,	336 Dickinson st.,	Broker, 318 Main st.
Clark, Henry G.,	345 Walnut st.,	Cigar Store and Pool Room, 832 State st.
Clark, James H.,	153 Catharine st.,	Clerk, 349-359 Main st.
Clark, James P.,	111 Ingersoll grove,	Wholesale Grocer, 14-16 Lyman st.
Clark, Peter,	54 Roseland st.,	Peddler, 54 Roseland st.
Clarke, Charles Frederick,	544 Sumner ave.,	Com. Traveler, Forbes Lithograph Co., Boston, Mass.
Cody, Nicholas T.,	527 Chestnut st.,	Cigar Maker, 527 Chestnut st.
Cody, William H.,	285 Chestnut st.,	Cigar Maker, 309 Main st.
Coe, David C.,	237 Long Hill st.,	Merchant Tailor, 107 Main st.
Coe, Lucius B.,	22 Vassar st.,	Jeweler, 204 Worthington st.
Cohen, Israel,	74 Charles st.,	Junk Dealer, 256 Ferry st.
Cohn, Abraham,	18 Morgan st.,	Merchant, Corner Main and Cypress sts.
Cohn, William O.,	112 Washington b'l'v'd,	Art Director, 29 Worthington st.
Colburn, Charles D.,	179 Allen st.,	Barn Man, 20 York st.
Collins, J. Frank,	131 Florida st.,	Wholesale Cotton and Waste Dealer, 156 Lyman st.
Collins, John F.,	422 Chestnut st.,	Teamster, Brightwood Rendering Co.
Collins, John J.,	71 Auburn st.,	Machinist, Motor Car Co., Brightwood.
Collins, John M.,	173 Bay st.,	Purchasing Agent, 53 Wilbraham road,
Collins, Stephen J.,	34 Church st.,	Grocer, 10 Main st.
Collins, Thomas M., Jr.,	520 Armory st.,	Mason, 16 Osgood st.
Collins, Thomas P.,	55 No. Main st.,	Foreman, 164 Bridge st.
Collins, Timothy J.,	60 Vinton st.,	Electrical Contractor, 3 Court House place.
Colton, Fred H.,	50 Prospect st.,	Newspaper Man, 381 Main st.
Colwell, Howard S.,	111 Berkshire st., I. O.	Clerk, Hough Cash Recorder Co., I. O.
Colwell, Harding H.,	84 Oak St., I. O.,	Salesman, 130 Lyman st.
Colwell, Harris A.,	15 Locust st.,	Teller, 407 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Colwell, Walter S.,	111 Berkshire st., I. O.,	Retired.
Combs, Louis E.,	115 Florence st.,	Clerk, 500 Main st.
Conlin, Bernard J.,	42 Bancroft st.,	Plumber, 19 Worthington st.
Conlin, Frank J.,	22 Brookline ave.,	Clerk, 376 Main st.
Connell, George C.,	105 Commonwealth ave.,	Printer, 29 Worthington st.
Cook, Arthur P.,	111 White st.,	Clerk, 111 White st.
Cook, George S.,	43 Brookline ave.,	Clerk, 55 to 61 Cypress st.
Coolbroth, Edwin L.,	85 Elliott st.,	Bookkeeper, 197 Spring st.
Coomes, Elias F.,	385 Belmont ave.,	Brick Maker, Forest Park Brick Yard.
Cooper, Charles F.,	179 Wilbraham road,	Manufacturer, Fairbanks place.
Cooper, George C.,	49 Orleans st.,	Clerk, 308 Main st.
Cooper, Leslie A.,	36 Alderman st.,	Machinist, 275 Main st.
Corbin, Arthur O.,	110 Florida st.,	Traveling Salesman, Austin Nichols Co., N. Y.
Cornell, Julius Myron,	144 Franklin st.,	Dentist, 120 Main st.
Corson, Harold E.,	131 Marion st.,	Proprietor of Garage, 824 State st.
Courtney, John J.,	23 Butler st.,	Cigar Maker, 309 Main st.
Cowles, Myron O.,	107 High st.,	Receiving Clerk, Stevens-Duryea, Chicopee Falls.
Cowles, Raymond M.,	198 Oakland st.,	Insurance Agent, 25 Harrison ave.
Cowles, Thomas L.,	198 Oakland st.,	Draughtsman, 198 Oakland st.
Craig, Samuel,	90 Calhoun st.,	Foreman, foot of Grape st., Chicopee.
Craig, Stedman W.,	517 Dickinson st.,	Merchant, 13 Lyman st.
Cram, Charles H.,	172 Long Hill st.,	Bookkeeper, Springfield Hospital.
Crane, John P.,	159 Main st., I. O.,	Superintendent, Indian Orchard Co., I. O.
Crawford, Robert H.,	86 Alden st.,	Milk Dealer, 86 Alden st.
Crocker, Clifton A.,	297 Union st.,	Paper Manufacturer, Holyoke.
Crofoot, William S.,	55 Oak st., I. O.,	Mechanic, Hough Recorder Co., I. O.
Cronin, Patrick F.,	10 Rutledge ave.,	Barber, 7 Court House place.
Cross, Eugene F.,	5 Sackett ave.,	Building Mover, 5 Sackett ave.
Cross, George W.,	25 Calhoun st.,	Collector, 111 Bridge st.
Crowley, Patrick A.,	38 Main st.,	Cigar Manufacturer, 194 Main st.
Crowley, John J.,	84 Linden st.,	Coal Dealer, 84 Linden st.
Cunliffe, Albert E.,	230 Eastern ave.,	Jeweler, 186 Worthington st.
Cunliffe, Ellis,	230 Eastern ave.,	Insurance Agent, 332 Main st.
Cunningham, John S.,	94 Tyler st.,	Real Estate Broker, 318 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Curley, James E.,	26 Clifton ave.,	Druggist, 296 Hancock st.
Curran, Bernard Joseph,	723 State st.,	Machine Inspector, Knox Auto. Co.
Cushman, Arthur I.,	31 Church st.,	Clerk, 109 Lyman st.
Daboll, F. Raymond,	26 Monmouth st.,	Telephone Inspector, 283 Worthington st.
Daley, Thomas E.,	62 Waverly st.,	Meat and Groceries, 374 Chestnut st.
Dart, Andrew P.,	90 Oak st.,	Salesman, 424-442 Main st.
Davis, Edwin T.,	157 Lebanon st.,	Contractor and Builder, 157 Lebanon st.
Davis, Winthrop I.,	17 Chase ave.,	Insurance, 419 Main st.
Davison, Henry B.,	76 Buckingham st.,	Jeweler, 471 Main st.
Davitt, Daniel J.,	410 Liberty st.,	Proprietor, 201 Liberty st.
Day, Frederic W.,	51 Marble st.,	Clerk, 30 Lyman st.
Day, Robert F.,	29 Avon place,	Clerk, U. S. Envelope Co., Cypress st.
Day, Samuel,	51 Marble st.,	Pistol Maker, Stockbridge st.
Day, William O.,	5 Madison ave.,	Manufacturer, U. S. Envelope Co., Cypress st.
Dean, Thomas P.,	198 Belmont ave.,	Importer of Drugs and Chemicals, 26 India st., Boston, Mass.
Deane, Oscar B., Jr.,	28 Myrtle st.,	Pawnbroker, 20 Dwight st.
Dearden, Clarence E.,	369 Wilbraham road,	Sheet Metal Worker, Taylor st.
Decker, Edward S.,	48 Harvard st.,	Lumber Dealer, 125 Dwight st.
DeFrate, Channing,	28 Morris st.,	Clerk, 463 Main st.
DeFrate, Coville,	29 Harrison ave.,	Stable Keeper, Rear 24 Harrison ave.
Deitz, William B.,	24 Brace st.,	Bookkeeper, 72 Dwight st.
Delehanty, James W.,	76 Grand st.,	Druggist, 492 Mill st.
Dennis, Herman E.,	338 Main st.,	Carpenter, Johnson, Contractor.
Denver, Paul H.,	20 Allen st.,	Shipping Clerk, 53 Wilbraham road.
Dexter, Clarence H.,	52 Bay st.,	Foreman, Stockbridge st.
Dexter, William H.,	19 Ingersoll grove,	Real Estate Broker, 25 Elm st.
DeWolf, Philip B.,	34 Douglas st.,	Machinist, B. & M. R. R.
Dibble, Burton E.,	107 Harvard st.,	Traveling Salesman, Carter, Carter & Mergs, Boston, Mass.
Dickinson, Eugene R.,	23 Foster st.,	Assembler, Stockbridge st.
Dickinson, Howard W.,	35 Riverview st.,	Salesman, 29 Worthington st.
Dill, Frank E.,	41 Bancroft st.,	Die Sinker, Stockbridge st.
Dillingham, Albert J.,	404 Walnut st.,	Wood Worker, Stockbridge st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Dineen, James,	168 Liberty st.,	Mason, 168 Liberty st.
Doersam, Franz Otto,	40 Murray Hill ave.,	Cigar Maker, 257 Main st.
Doherty, John F.,	246 Main st., I. O.,	Dentist, 150 Main st., I. O.
Donahue, Charles A.,	4 Mattoon st.,	Plumber, 42 Harrison ave.
Donahue, John T.,	400 Liberty st.,	Telegraph Operator, B. & A. Office.
Donnellan, Thomas J.,	55 Massasoit st.,	Molder, Chicopee.
Donnelly, Hugh J.,	51 Avon place,	Buyer, 424-442 Main st.
Donoghue, James A.,	42 Morgan st.,	Clerk, 160 Main st.
Donohue, Daniel P.,	135 North st.,	Clerk, 214 Worthington st.
Donohue, John W.,	32 Plainfield st.,	Architect, 32 Plainfield st.
Donovan, James,	117½ Congress st.,	Painter, 117½ Congress st.
Donovan, James J.,	41 Charles st.,	Manager, 511 Main st.
Donovan, John T.,	56 Greenwood st.,	Clerk, 204 Main st.
Donovan, Thomas,	143 Bond st.,	Clerk, 16-18 Lyman st.
Donovan, Timothy,	88 Tyler st.,	Box Maker, Cor. Orleans and Quincy sts.
Donovan, William J.,	158 North st.,	Merchant, 204 Main st.
Doolittle, Edwin F.,	335 Oakland st.,	Inspector, B. & M. R. R.
Doolittle, Frank P.,	120 Maplewood ter.,	Traveling Salesman, 258 Main st.
Doty, William H.,	998 State st.,	Bookkeeper, 852 State st.
Dowd, George B.,	23 Beech st.,	Student, 292 Main st.
Dowd, O. Frank,	26 Alderman st.,	Tailor, 26 Alderman st.
Dowd, William F.,	18 Genesee st.,	Salesman, 41-45 Hampden st.
Dowling, Edward,	122 Greenwood st.,	Plumber, 193 Lyman st.
Downer, Guy W.,	21 Ventura st.,	Teller, 321-323 Main st.
Downey, Daniel J.,	40 Greenwood st.,	Painter, B. & M. R. R.
Downey, Henry M.,	157 Dickinson st.,	Manager, 150 Bridge st.
Downey, James J.,	20 Everett st.,	Shoe Dealer, 220 Main st.
Doyle, John F.,	54 Webster st.,	Butter and Eggs, 54 Webster st.
Doyle, Michael J.,	245 North st.,	Foreman, 121 Bridge st.
Doyle, Thomas,	74 Holyoke st.,	Molder, Not Employed.
Drake, Albert E. W.,	145 Bowles st.,	Foreman, Cor. Main st. and Harrison ave.
Drake, Arthur N.,	108 No. Main st.,	Janitor, 50 Elm st.
Drake, Thomas,	130 Everett st.,	Foreman, 13 Market st.
Dubois, Herbert E.,	38 Patton st.,	Foreman, Springfield St. R. R. Co.
Dumbleton, Frederick H.,	26 Euclid ave.,	Bookkeeper, 500 Main st.
Dunn, James E.,	24 Congress st.,	Clerk, 183 Main st.
Dunn, James H.,	19 Margaret st.,	Broker, 25 Harrison ave.
Dunn, Michael,	16 Colonial ave.,	Carriage Maker, 54-60 Emery st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Dunn, Peter J.,	24 Congress st.,	Clerk, 160 Main st.
Durfee, Joseph W.,	600 Sumner ave.,	Machinist, Stockbridge st.
Durkee, Henry S.,	699 Belmont ave.,	Civil Engineer, 17 Hampden st.
Dwight, George B.,	24 Besse place,	Shipping Clerk, 41-45 Hampden st.
Eaton, Raymond H.,	11 Carpenter st.,	Clerk, 141 Lyman st.
Eberhardt, Oscar A.,	47 Demond ave.,	Secretary, Cor. Dwight and State sts.
Edwards, Frank W.,	24 Myrtle st.,	Wood Carver, 73 Dwight st.
Edwards, Joseph B.,	25 White st.,	Compositor, 275 Main st.
Ehrlich, Mosis,	25 Lenox st.,	Coal Dealer, 320 Summer st.
Eldredge, Earl C.,	17 Chase ave.,	Manufacturer, 3 Post Office sq.
Elmer, George C.,	r. 24 Sumner ave.,	Carpenter, r. 24 Sumner ave.
Elmer, Nelson L.,	642 State st.,	Real Estate Dealer, 293 Main st.
Elsey, Harry P.,	207 Belmont ave.,	Druggist, 44 Armory st.
Emerson, Edwin,	99 Jefferson ave.,	Foreman, Agawam Paper Mill, Mittineague.
Emerson, John B.,	70 Charles st.,	Motorman, Springfield St. Ry. Co.
English, Thomas,	378 No. Main st.,	Newspaper Man, 216 Worthington st.
Eustis, Charles W.,	156 Central st.,	Reporter, 292 Main st.
Ewig, Julius,	323 Central st.,	Real Estate Dealer, 381 Main st.
Fairchild, Robert M.,	692½ Main st.,	Clerk, 696 Main st.
Fairfield, George W.,	94 Bowles st.,	Real Estate Dealer, 94 Bowles st.
Falt, Joseph B.,	123 Ingersoll grove,	Superintendent, Cor. Armory St. Bridge.
Falvey, Arthur W.,	115 Linden st.,	Mason Contractor, 115 Linden st.
Farrell, Frederick W.,	178 Maple st.,	Chemist, 177 State st.
Fenn, George L.,	208 Ft. Pleasant ave.,	Dentist, 310 Main st.
Ferguson, Howard T.,	155 Wilbraham road,	Bookbinder, 135 Dwight st.
Fernald, Edgar S.,	31 Cherryvale ave.,	Newspaper Work, 21 Besse pl.
Ferrier, James Fraser,	93 Cleveland st.,	Draughtsman, 284 Birnie ave.
Ferry, George C.,	159 Oakland st.,	Millwright, Cor. Broad and Hanover sts.
Ferry, William C.,	79 Ashley st.,	Sawyer, Cor. Cross and Willow sts.
Finn, Michael J.,	108 Grover st.,	Mason.
Fiske, Eugene E.,	48 Leyfred terrace,	Assistant Treasurer, 109 Lyman st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Fitch, Charles H.,	44 Church st.,	Bookkeeper, 18 Liberty st.
Fitch, Henry W.,	83 Greenwood st.,	Blacksmith, 18 Liberty st.
Fitch, Louis R.,	83 Greenwood st.,	Clerk, 500 Main st.
Fitzgerald, James J.,	15 Grosvenor st.,	Inspector of Water Meters, 121 Bridge st.
Fitzgerald, James M.,	50 Winthrop st.,	Bookbinder, 58 Harrison ave.
Fitzgerald, Richard J.,	212 Eastern ave.,	Plumber, 151 State st.
Flagg, Charles W.,	151 Lebanon st.,	Teamster, Burger & Taft, Alden st.
Fleming, Clifford DeVere,	14 Hawthorne st.,	Grocer, Cor. Pine and Florence sts.
Fletcher, Maurice D.,	46 Locust st.,	Manager, 293 Main st.
Flint, Herbert E.,	155 Catharine st.,	Civil Engineer, 121 Bridge st.
Foley, Timothy J.,	98 Tyler st.,	Grocer, 111 Hancock st.
Ford, William H.,	32 Fort Pleasant ave.,	Machinist, 964 Main st.
Ford, Willis A.,	208 Belmont ave.,	Manager, 33 Lyman st.
Forester, Waldo R.,	30 Vernon st.,	Retired.
Foskett, Harrison W.,	4 Chestnut st.,	Clerk, 140 State st.
Foster, Arthur A.,	E. S. Parker st., I. O.,	Farmer.
Foster, Festus H., Jr.,	43 Kenwood park,	Clerk, 18 Lyman st.
Foster, John W.,	118 Allen st.,	Architect, 15 Woodworth ave.
Foster, William,	15 Quincy st.,	Carpenter, 12 Cass st.
Fowler, Dorr R.,	707 State st.,	Broker, 317 Main st.
Fowler, Frank H.,	19 Arch st.,	Chauffeur, 25 Taylor st.
Fowler, Ralph N.,	121 Princeton st.,	Paper Manufacturer, Holyoke.
Fowler, Ralph P.,	121 Princeton st.,	Paper Manufacturer, Holyoke.
Frawley, Thomas J.,	148 Abbe ave.,	Steward, 236-238 Main st.
Freedman, Joseph,	49 Clinton st.,	Clerk, 31 Ferry st.
French, William H.,	32 Chase ave.,	District Foreman, 283 Worthington st.
Frenier, Maxim O.,	587 Union st.,	Draughtsman, 53 Wilbraham road.
Fretts, George H.,	86 Belmont ave.,	Salesman, W. N. Potter & Son, Liberty st.
Frey, Charles,	24 Grover st.,	Motorman, Springfield St. Ry. Co.
Friese, D. Fred.,	66 Pynchon st.,	Compositor, 292 Main st.
Frost, GeorgeA.,	32 Emery st.,	Clerk, 171 Main st.
Frost, Victor M.,	33 Pearl st.,	Liveryman, 87 Water st.
Fuller, Frank D.,	169 Princeton st.,	Secretary, 336 Birnie ave.
Fuller, Frederic W.,	328 Union st.,	Insurance Manager, Cor. Harrison ave. and Market st.
Fuller, William J.,	53 Buckingham st.,	Livery Stable, 24 Hancock st.
Fulton, John B.,	68 Bradford st.,	Foreman, Victor Sporting Goods, Lyman st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Furrows, Albert H.,	38 Plymouth st.,	Manager, 15 Elm st.
Furrows, Samuel E.,	43 Calhoun st.,	Bookkeeper, 258 Main st.
Gage, Charles A.,	179 White st.,	Painter, 179 White st.
Gage, Charles H.,	116 Fort Pleasant ave.,	Clerk, Fisk Rubber Co., Chicopee.
Gagnier, Christopher I.,	Locust Hill,	Builder, 327 Main st.
Galbraith, Sayward,	162 Fort Pleasant ave.,	Manufacturer, North Monson.
Gallagher, Edward J.,	16 Tenth st.,	Motorman, Spgfld. St. Ry. Co.
Gammons, William L.,	276 North st.,	Clerk, 500 Main st.
Gardner, George C.,	251 Rimmon ave.,	Architect, 33 Lyman st.
Garvey, Patrick T.,	36 Franklin st.,	Carpenter, 29 Worthington st.
Garvey, Thomas M.,	36 Franklin st.,	Conductor, Spgfld. St. Ry. Co.
Gates, Albert H.,	13 Hawthorne st.,	Clerk, 139 State st.
Gaunt, Frank L.,	343 Walnut st.,	Merchant Grocer, 351 Walnut st.
Gaunt, George W.,	343 Walnut st.,	Grocer, 351 Walnut st.
Gaylord, Ralph W.,	95 Montrose st.,	Clerk, Stockbridge st.
Geary, William,	49 Calhoun st.,	Wholesale Flour Business, Dwight st., Holyoke.
Geiger, George K.,	270 Liberty st.,	Superintendent, 270 Liberty st.
George, Charles H.,	161 Walnut st.,	Machinist, 190 Worthington st.
Gibbins, William,	69 Auburn st.,	Elevator Builder, 104 Taylor st.
Gibbs, J. Edwin,	219 No. Main st.,	Salesman, 348 Main st.
Gifford, Albert W.,	72 Princeton st.,	Locksmith, 26 Fort st.
Gilbert, Arthur L.,	40 Homer st.,	Florist, 40 Homer st.
Gilbert, Harry S.,	38 North st.,	Manager, 310 Main st.
Gilmore, James S.,	119 Hampden st., I. O.,	Foreman, Hodges Fiber Carpet Co., I. O.
Gleason, John J.,	42 Linden st.,	Undertaker, 175 Dwight st.
Godfrey, William C.,	105 Hampden st., I. O.,	Agent, Indian Orchard Co., I.O.
Goldin, Joseph,	20 Hebron st.,	Agent, 4 Ferry st.
Goldstein, Benjamin,	618 Sumner ave.,	Clothier, 17 Elm st.
Goldthwaite, Edward S.,	143 Maple st.,	Insurance Business, 500 Main st.
Gooch, Robert A.,	18 Margaret st.,	Drummer, 47 Lyman st.
Goodyear, Walstein B.,	524 Union st.,	Janitor, Hall of Records, Elm st.
Gould, Frank L.,	86 Firglade ave.,	Civil Engineer, 274 Main st.
Gowdy, William F.,	62 Harvard st.,	Telephone Co., 283 Worthington st.
Grady, William H.,	27 Tenth st.,	Agent, 19 Sanford st.
Graham, George H.,	19 Monmouth st.,	Merchant Tailor, 423 Main st.
Granfield, William J.,	100 Hancock st.,	Clerk, 390-396 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Greany, James E. R.,	524 Armory st.,	Waiter, Harvard Lunch, Chestnut st.
Greany, Peter,	54 Everett st.,	Hackman, 54 Everett st.
Green, Albert R.,	104 No. Main st.,	Supt., 58 Harrison ave.
Green, Daniel B.,	21 Chapel st.,	Milk Dealer, 21 Chapel st.
Green, William F.,	33 Boylston st.,	Merchant, 273 Main st.
Greene, Edward S.,	397 Main st.,	Salesman, Hotel Kimball.
Gregg, William M.,	57 Beaumont st.,	Electrical Contractor, 531 Main st.
Griffin, James J.,	239 Main st., I. O.,	Merchant, 239 Main st., I. O.
Griffin, Lawrence P.,	111 Massasoit st.,	Produce Dealer, 153 Plainfield st.
Grise, Joseph,	29 Vine st.,	Helper, Municipal Group.
Gross, Alfred B.,	125 North st.,	Manager, 322 Main st.
Grover, Harry L.,	20 Holyoke st.,	Tool Maker, Cor. Willow and Cross sts.
Grunwaldt, Amandus C.,	72 Acushnet ave.,	Die Sinker, 72 Acushnet ave.
Guess, William J.,	443 Franklin st.,	Printer, 29 Worthington st.
Gumble, Frank W.,	41 Avon place,	Real Estate Dealer, 437 Main st.
Gunderman, George,	66 Pynchon st.,	Supt., 31 Stockbridge st.
Gunn, Frank B.,	178 Hancock st.,	Grocer, 173 Hancock st.
Hadd, George H.,	66 Pynchon st.,	Barber, 25 Court st.
Hagerty, Daniel A.,	122 Franklin st.,	Mailing Clerk, 29 Worthington st.
Haile, Henry C.,	28 Edwards st.,	Retired.
Hale, Albert E.,	64 Seventh st.,	Dealer in Wall Paper and Paint, 3 Post Office square.
Hale, Clifford E.,	127 Jefferson ave.,	Inspector, Wason Co.
Hall, Edward H.,	399 Union st.,	Secretary, American Writing Paper Co.
Hall, George W.,	38 Jefferson ave.,	Not Employed.
Hall, Walter E.,	350 Dickinson st.,	Printer, 48 Harrison ave.
Hall, William G.,	133 Cedar st.,	Junk Dealer, 129 Cedar st.
Haller, John J.,	81 Colton st.,	Cabinet Maker, Walker st.
Halstead, Charles E.,	47 Merwin st.,	Coal Dealer, 135 Main st.
Halstead, Frank J.,	47 Merwin st.,	Clerk, 392 Main st.
Halstead, Leroy W.,	47 Birnie ave.,	Clerk, 227 Plainfield st.
Hamilton, Willis D.,	22 Acushnet ave.,	Clerk, 445 Main st.
Hammond, William E.,	146 Hampshire st.,	Cashier, 236-238 Main st.
Handy, Herbert L.,	153 Princeton st.,	President, 41 Hampden st.
Handyside, Robert,	79 Pearl st.,	Bookkeeper, 21 Willow st.
Hanifin, Frank T.,	401 Chestnut st.,	Clerk, 19 Worthington st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Hanley, Thomas J.,	133 Franklin st.,	Barber, 282 Worthington st.
Hannan, Francis,	48 Stebbins st.,	Insurance Agent, 500 Main st.
Hanson, Isaac W.,	312 Liberty st.,	Hostler, 37 Vinton st.
Hardy, Albert,	96 Acushnet ave.,	Editor, 96 Acushnet ave.
Hare, Albert P.,	38 Main st.,	Real Estate Dealer, 40 Main st.
Harley, Leon J.,	44 Westford ave.,	Millett Brass Co., Jennett ave.
Harrington, Daniel J., Jr.,	420 No. Main st.,	Salesman, 67 Lyman st.
Harrington, Emmett A.,	79 Cedar st.,	Glazier, 31-41 Market st.
Harrington, George W.,	33 Acushnet ave.,	Machinist, 983 Main st.
Harrington, Patrick,	92 Central st.,	Plumber, Unemployed.
Harris, Charles B.,	39 Madison ave.,	Manufacturer, 58 Harrison ave.
Harris, M. Victor,	47 Tenth st.,	Printer, 288 Main st.
Hart, Walter S.,	22 Clarendon st.,	Foreman, B. & M. Machine Shop.
Hart, William E.,	19 Greenwood st.,	Clerk, 86 Main st.
Hartwell, Oscar D.,	104 North st.,	Retired.
Harvey, Arthur C.,	357 St. James ave.,	Manufacturer, 357 St. James ave.
Harvey, David L.,	99 St. James ave.,	Foreman, Stockbridge st.
Harvey, William E.,	366 Hancock st.,	Tracer, 837 State st.
Harwood, Leon M.,	958 State st.,	Manufacturer, 958 State st.
Haskins, Arthur S.,	376 Sumner ave.,	Cashier, 500 Main st.
Haskins, William H.,	948 State st.,	Assistant Treasurer, 407 Main st.
Hastings, Herbert A.,	355 Maple st.,	Landscape Gardener, 355 Maple st.
Hastings, Herbert C.,	26 Mapledell st.,	Draughtsman, Wason Car Co., Brightwood.
Hatch, Homer L.,	651 Worthington st.,	Wholesale Butter Dealer, 651 Worthington st.
Hathaway, Alfred R.,	79 Marengo park,	Water Registrar, 121 Bridge st.
Havens, Frederick W.,	72 Monmouth st.,	President, 68 Bridge st.
Havens, George H.,	23 Leyfred terrace,	Insurance Agent, 500 Main st.
Hawes, Harry L.,	593 State st.,	Merchant, 416 Main st.
Hawkes, Louis T.,	92 Bancroft st.,	Insurance Man, 195 State st.
Hawkes, Thomas C.,	76 Byers st.,	Photographer, 70 Byers st.
Hawley, Frank R.,	41 Chase ave.,	Real Estate Dealer, 419 Main st.
Hayden, George S.,	76 Armory st.,	Wire Worker, Cor. Heywood and Warwick aves.
Hayes, James J.,	91 Butler st.,	Electrician, foot of State st.
Hayes, Martin,	31 Linden st.,	Helper, 54 Fort st. and 1273 State st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Hayes, Timothy P.,	123 Main st.,	Foreman, Springfield Provision Co., Brightwood.
Hayhurst, James C.,	10 Stebbins st.,	Artist, Taber-Prang Co., Liberty st.
Haynes, Stanford L.,	11 Thompson st.,	Gents' Clothier, 348 Main st.
Hazelwood, Frank A., Jr.,	41 Carew st.,	Shipping Clerk, 309 Main st.
Healy, Martin H.,	17 Congress st.,	Insurance Agent, 476 Main st.
Hendee, George M.,	74 Avon place,	Manufacturer, 837 State st.
Hennesey, Matthew J.,	84 Everett st.,	Assembler, 354 Birnie ave.
Hennessey, John B.,	30 Murray Hill ave.,	Laborer, 121 Bridge st.
Hennessey, Martin J.,	80 Massasoit st.,	Conductor, Spgfld. St. Ry. Co.
Henry, George F.,	69 Cass st.,	Mattress Maker, 349-359 Main st.
Hersey, George L.,	43 Stebbins st.,	Merchant, 35 Worthington st.
Hickey, Thomas,	88 Myrtle st., I. O.,	Insurance Agent, 500 Main st.
Hill, Frank W.,	20 Mattoon st.,	Clerk, 345 Main st.
Hillman, Frederick J.,	34 Leyfred terrace,	Manager, 15 Elm st.
Himelfarb, Samuel,	34 Gray's ave.,	Shoe Dealer, 259 Main st.
Hinckley, Louis D.,	27 John st.,	Traveling Man, Not Employed.
Hine, Eugene L.,	34 Florence st.,	Jobber, 34 Florence st.
Hitchcock, Asher H.,	49 Church st.,	Optician, 317 Main st.
Hoag, David A.,	42 Sumner terrace,	Buyer, 349-359 Main st.
Hoag, Harry A.,	30 Clifton ave.,	Welder, 41 Bay st.
Hodgdon, Wilson R.,	56 High st.,	Teller, Cor. Main and Elm sts.
Hodges, George C.,	48 Grenada terrace,	Grocer, 582 Main st.
Holbrook, George B.,	130 Maple st.,	Paper Manufacturer, Holyoke.
Holden, Edward H.,	211 Main st.,	Veterinary Surgeon, 25 Sanford st.
Holian, Jerry W.,	75 Cass st.,	Butcher, 261 Chestnut st.
Holland, Charles L.,	78 Florence st.,	Machinist, 193 Lyman st.
Holland, James,	406 Chestnut st.,	Clerk, 86 Main st.
Holman, Walter E.,	350 Dickinson st.,	Broker, 500 Main st.
Holmes, Frederick A.,	8 Auburn st.,	Cigar and Tobacco Dealer, 27 No. Main st.
Holmes, Frederick M.,	52 Seventh st.,	Foreman, 54 Taylor st.
Hooker, Louis W.,	558 Plainfield st.,	Superintendent, Brightwood Provision Co
Hooker, Ralph W.,	67 Chestnut st.,	Salesman, 68 Bridge st.
Hopkins, Daniel A.,	93 Wilbraham road,	Boot and Shoe Salesman, 201-203 Worthington st.
Horr, Irving S.,	60 Buckingham st.,	Supt., 390-396 Main st.
Hosley, Charles D.,	1166 Worthington st.,	Jeweler, 449 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Hosmer, Charles H.,	47 Marble st.,	Foreman, Cor. Quincy and Orleans st.
Hosmer, Eugene C.,	187 King st.,	Salesman, 120 Oakland st.
Houston, John Henry,	18 Sargeant st.,	Meat and Groceries, 30 Main st.
Howard, Charles E.,	275 Chestnut st.,	Foreman, 98 Liberty st.
Howard, Charles H.,	38 Bradford st.,	None.
Howard, Walter E.,	26 Besse place,	Cabinet Maker, Wason Car Shop, Brightwood.
Howe, Fred G.,	372 St. James ave.,	Music Dealer, Cor. Dwight and State sts.
Howe, George M.,	22 Catharine st.,	Carpenter, Palmer Carpet Mills.
Howe, George M.,	958 State st.,	Clerk, 500 Main st.
Howe, Walter R.,	372 St. James ave.,	Music Dealer, Cor. State and Dwight sts.
Howes, Harry M.,	679 State st.,	Salesman, 349-359 Main st.
Howes, Harry W.,	56 Bancroft st.,	Printer, 82-86 Worthington st.
Hoyt, Charles L.,	139 Bay st.,	Furrier, 149 State st.
Hubbard, Fred A.,	80 Florida st.,	Broker, 317 Main st.
Hubbard, Charles G.,	57 Alden st.,	Bank Clerk, 321-323 Main st.
Hubbard, George D.,	57 Alden st.,	Pickle Manufacturer, 57 Alden st.
Hubbell, Frederick C.,	19 Cliftwood ave.,	Manager, 261 Main st.
Hudson, Charles W.,	391 Belmont ave.,	Shipping Clerk, 60 Hampden st.
Hughes, Bernard E.,	481 Worthington st.,	Stationary Engineer, North Brookfield.
Hughes, Robert W.,	63 Berkshire st., I. O.,	Stock Clerk, Worcester st., I. O.
Huliston, James,	58 Armory st.,	Buyer, 390-396 Main st.
Hunt, Charles L.,	14 Howard place,	Machinist, Stockbridge st.
Hurwitz, Sam.,	42 Plymouth st.,	Lumber Dealer, 42 Plymouth st.
Hutchins, Charles W.,	537 Main st.,	Mason Contractor, 537 Main st.
Hutchins, Willie A.,	60 Hancock st.,	Waiter, 55 Harrison ave.
Hutchinson, Charles R.,	30 Sherman st.,	Traveling Salesman, 30 Sherman st.
Hyde, Jerome W.,	33 Lyman st.,	Storage, Liberty st.
Hyde, Judson F.,	108 Alden st.,	Tinsmith, 69 Dwight st.
Hyde, Thomas W.,	24 Avon place,	Insurance, 500 Main st.
Hynes, Andrew T.,	55 Cass st.,	Electrotype Operator, Daily News, Dwight st.
Irwin, Thomas W.,	85 Hampshire st., I. O.,	Collector, 318 Main st.
Isenburg, Herman,	152 Sumner ave.,	Merchant, 373 Main st.
James, Alfred,	86 North st.,	Meat Cutter, 373 Main st.
Janes, Arthur L.,	116 Florence st.,	Secretary, Holyoke Card & Paper Co., Brightwood.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Jefferson, Charles J.,	50 Jefferson ave.,	Draughtsman, Stevens Arms & Tool Co., Chicopee Falls.
Jenks, Ralph T.,	263 Central st.,	Clerk, Stevens Arms & Tool Co., Chicopee Falls.
Jensen, Franz G.,	199 Forest Park ave.,	Confectioner, 319 Main st.
Jewett, Raymond D.,	25 Lexington ave.,	Clerk, 500 Main st.
Johnson, Charles B.,	358 Chestnut st.,	Machinist, 54 Taylor st.
Johnson, Henry R.,	53 Fairfield st.,	Merchant, 391 Main st.
Johnson, Marshall R.,	74 Temple st.,	Drug Clerk, 186 State st.
Jones, Samuel M.,	N. S. Boston road,	Farmer.
Jordan, John D.,	16 Terrence st.,	Painter and Decorator, 16 Terrence st.
Jordan, William H.,	345 Central st.,	Pawnbroker, 432 Main st.
Katz, Louis,	67 Church st.,	Hotel Proprietor, 526 Main st.
Keefe, Daniel F.,	15 Merrick ave.,	Druggist, Cor. Hancock and King sts.
Keith, John E.,	167 Marion st.,	Proprietor, 24 Harrison ave.
Keith, William J.,	24 Grove st.,	Clerk, 283 No. Main st.
Kelley, Edward W.,	412 Walnut st.,	Brick Layer, 256 King st.
Kelley, Thomas A., Jr.,	145 Essex st.,	Cigar Manufacturer, 181 Main st.
Kelliher, John J.,	51 Huntington st.,	Parcel Delivery, 24 East Court st.
Kelliher, Thomas F.,	12½ Greenwood st.,	Printer, Cor. Main and Lyman sts.
Kellogg, Charles H.,	14 Vernon st.,	Employment Office, 274 Main st.
Kellogg, Fred T.,	120 Maple st.,	Retired.
Kemater, George H.,	245 St. James ave.,	Banker, 500 Main st.
Kendall, Elwin D.,	609 Union st.,	Clerk, Public Library.
Kendall, George F.,	189 Walnut st.,	Clerk, 21-25 Clinton st.
Keyes, Henry W.,	128 Hampden st., I. O.,	Shipping Clerk, Chapman Valve Co., Pine st., I. O.
Kibbe, Charles A.,	156 Pearl st.,	Retired.
Kibbe, Robert H.,	343 Hancock st.,	Assembler, 837 State st.
Kimball, Benjamin L.,	14 Washburn st.,	Furniture Dealer, 47 Main st.
King, Ambrose S.,	87 Elliott st.,	Real Estate Agent, 307 Main st.
King, Edward F.,	88 Carew st.,	Clerk, 160 Main st.
King, Frank W.,	54 Warner place,	Architect, 33 Lyman st.
King, Henry W.,	112 North st.,	Salesman, 216 Worthington st.
King, Herman L.,	84 Thompson st.,	Carpenter, 84 Thompson st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
King, William L.,	W. S. Berkshire ave., I. O.	Storekeeper, W. S. Berkshire ave.. 1. O.
Kirkham, J. Stuart,	107 Maplewood terrace,	Retired.
Kirkham, James W.,	275 Maple st.,	Banker, Union Trust Co.
Kirwan, William P.,	254 Carew st.,	President and Treasurer, 216 Worthington st.
Kittel, Ernest J.,	37 Catharine st.,	Jeweler, 31 Harrison ave.
Knott, George P.,	92 Belmont ave.,	Commercial Traveler, Wilksam Paper Co., N. Y.
Knox, Harry A.,	242 Pearl st.,	Atlas Motor Car Mfg., 88 Birnie ave.
Kohn, Felix,	68 Plainfield st.,	Clerk, Springfield Brewery Co.
Koltzau, Fritz,	20 Crosby st.,	Cigar Maker, Cor. Bridge and Dwight sts.
Kopelman, Jacob H.,	43 Main st.,	Clothier, 196 Main st.
Kramer, Paul,	31 Temple st.,	Merchant, 248 Main st.
Kuhn, Albert,	3 Sumner ave.,	Foreman, Cor. Fort and Water sts.
LaBœuf, Edward E.,	67 Grover st.,	Plumber, 13 Lyman st.
Ladd, Benjamin W.,	67 Allen st.,	Dealer in Tea and Coffee, 67 Allen st.
Ladd, Edwin G.,	67 Allen st.,	Clerk, 67 Allen st.
Laird, William H.,	33 Beechwood ave.,	Foreman, 349-359 Main st.
Landen, John E.,	83 Monmouth st.,	Jeweler, 47 Hillman st.
Lander, Frederick M.,	1 Florentine Gardens,	Teller, 425-427 Main st.
Lane, Albert C.,	28 Chase ave.,	Merchant, Worcester, Mass.
Lane, Fred A.,	63 No. Main st.,	Grocer, 160 Main st.
Lane, Henry P.,	129 Buckingham st.,	Dancing Master, 182 State st.
Lane, Robert E.,	55 Nelson ave.,	Automobile Business, Cor. William and Main sts.
Langdon, Lucius C.,	329 Central st.,	Electrician, Cor. Worcester and Fiberloid sts., I. O.
Lange, Frank J.,	105 Bridge st.,	Electric Engineer, Westfield.
Lange, William,	53 Eastern ave.,	Cabinet Maker, 53 Wibraham road.
Langford, Joseph H.,	69 Vine st.,	Plumber, 19 Worthington st.
Lannon, Charles B.,	5 Springfield st.,	Motorman, Sngfld. St. Ry. Co.
Larkin, William F.,	152 Central st.,	Salesman, Cor. State and Dwight sts.
Lashorn, George L.,	83 Elm st.,	Laborer, 531 Main st.
Latimer, Franklin A.,	36 Beechwood st.,	Superintendent, Cor. Main and Worthington sts.
Lavigne, Eugene A.,	39 Beech st.,	Traveling Salesman, Walker & Gibson Co., Albany, N. Y.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Lawler, John,	64 Avon place,	Monumental Business, 49 Worthington st.
Lawler, Maurice J.,	104 Congress st.,	Watchman, Forbes & Wallace.
Lawler, Thomas,	121 Linden st.,	Tool Maker, 354 Birnie ave.
Lawless, John,	52 Vinton st.,	Carpet Layer, 349-359 Main st.
Lay, William E.,	46 Dale st.,	Florist, 437 Bay st.
Learned, William E.,	92 Woodside terrace,	Foreman, Cor. Broad and Hanover sts.
Leary, Christopher,	65 Kenwood park,	Retired.
Leeds, Alfred,	27 Ridgewood terrace,	Paper Manufacturer, Holyoke.
Legein, Joseph L.,	50 Howard st.,	Manufacturer, 50 Howard st.
Leitch, Meredith,	229 Rimmon ave.,	Consulting Engineer, 33 Lyman st.
Leitch, William,	N. S. Bay st.,	Dentist, 373½ Main st.
Lennehan, Frank D.,	33 Salem st.,	Restaurant Keeper, 215 Worthington st.
Leshure, Willard P.,	561 No. Main st.,	Manufacturer, Hampden Corundum Wheel Co.
Lester, John J.,	33 Patton st.,	Broker, 33 Patton st.
Lester, William M.,	121 Harvard st.,	Treasurer, 338 Worthington st.
Lewis, Arthur B.,	233 Forest Park ave.,	Merchant, 461 Main st.
Lewis, Charles C.,	192 Long Hill st.,	Merchant, 32 Lyman st.
Lewis, Henry V.,	76 Mill st.,	Bookkeeper, 381 Main st.
Lewis, Robert E.,	139 King st.,	Clerk, 43 Lyman st.
Ley, Harold A.,	18 Leyfred terrace,	Contractor, 307 Main st.
Livingston, Fred W.,	42 Alden st.,	Machinist, Cor. Willow and Stockbridge sts.
Lockwood, Alfred L.,	115 Tyler st.,	Manufacturer, 58 Harrison ave.
Lombard, Frederick B.,	811 Main st.,	Clerk, Hartford, Ct.
Lombard, Ralph E.,	811 Main st.,	Real Estate Dealer, 811 Main st.
Lombard, Winthrop K.,	38 Osgood st.,	Coal Dealer, 165 Main st.
Long, Arthur E.,	368 St. James ave.,	Supt., 390-396 Main st.
Lord, William S.,	48 Acushnet ave.,	Pistol Maker, Stockbridge st.
Lovett, Thomas H.,	26 Vinton st.,	Tool Maker, 60 Hampden st.
Low, Fred,	27 Milton st.,	Clerk, Chapman Valve Co., Pine st., I. O.
Low, J. Frank,	45 Locust st.,	Agent, 500 Main st.
Ludden, Richard E.,	20 Harriet st.,	Plumber, 32 Exchange st., Chicopee.
Ludden, William P.,	143 North st.,	Lunch Business, 204 High st., Holyoke.
Lukes, Harry,	20 Jefferson ave.,	Veterinary Surgeon, 39 Railroad row.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Lumis, Fred W.,	28 Bedford road,	Building Inspector, Pynchon st.
Lyman, George W.,	92 Buckingham st.,	Building Contractor, 92 Buckingham st.
Lynch, Charles E.,	Round Hill,	Merchant, 369 Main st.
Lynch, Daniel,	704 Union st.,	Teamster, 150 State st.
Lyons, Michael H.,	144 Main st., I. O.,	Merchant, 142 Main st., I. O.
Lyons, Michael J.,	63 Tyler st.,	Butcher, 106 Hancock st.
Lyons, Patrick J.,	123 Hancock st.,	Grocer, 106 Hancock st.
Mack, James,	39 Murray Hill ave.,	Wire Weaver, Warwick ave.
Mack, Michael,	31 Sheldon st.,	Baker, 134 Main st.
Madden, Michael J.,	276 Armory st.,	Lithographer, Warwick ave.
Magaziner, Jacob,	74 Ferry st.,	Merchant, 74 Ferry st.
Maguire, Peter,	47 Everett st.,	Laborer, 121 Bridge st.
Maloney, James T.,	16 Vinton st.,	Teamster, 54 Fort st. and 1273 State st.
Manning, William,	50 Fairfield st.,	Insurance Agent, 500 Main st.
Mannix, John T.,	148 Bond st.,	Chef, 211 Main st.
Manser, Elmer E.,	285 Allen st.,	Carpenter and Builder, 285 Allen st.
Mansfield, George E., Jr.,	420 Sumner ave.,	Baker, 31 Bridge st.
Mansfield, Michael J.,	13 Oak st., I. O.,	Waiter, 13 Oak st., I. O.
Mansfield, Peter H.,	117 Essex st.,	Butcher, 424 Dickinson st.
Maranville, George L.,	117 Lebanon st.,	Real Estate and Auctioneer, 117 Lebanon st.
Marcy, Charles O.,	579 State st.,	Filer, Stockbridge st.
Marsh, Harry C.,	23 Magnolia terrace,	Bookkeeper, 211 Main st.
Marsh, Henry D.,	9 Buckingham place,	Banker, 425-427 Main st.
Marsh, Philip A.,	211 Main st.,	Manager, 211 Main st.
Martin, Alfred E.,	94 Westford ave.,	Superintendent, 121 Bridge st.
Martin, Edward G.,	41 Pomona st.,	Assistant City Engineer, 121 Bridge st.
Mather, Luther T.,	7 Monmouth st.,	Brush Manufacturer, 275 Main st.
Mathews, Albert A.,	62 Howard st.,	Metal Worker, 11 Dwight st.
Mathison, Arthur A.,	119 Westford ave.,	Assistant Teller and Bookkeeper, 464 Main st.
May, Albert W.,	293 Belmont ave.,	Druggist, 298 Belmont ave.
Maynard, Edward W.,	855 Belmont ave.,	Merchant, 139 Bridge st.
Maynard, Everett E.,	116 Belmont ave.,	Manager, 17 Besse place.
McAuley, Frank A.,	81 Bond st.,	Electrician, Spgfld. St. Ry. Co.
McCall, Daniel F.,	150 Tenth st.,	Shoe Clerk, 367 Main st.
McCarthy, Daniel,	583 Union st.,	Plumber, 583 Union st.
McCarthy, Jeremiah,	11 Bond st.,	Grain Handler, Cor. Hanover and Gardner sts.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
McCarthy, Patrick H.,	9 Murray Hill ave.,	Broker, 332 Main st.
McCarthy, Timothy,	51 Cass st.,	Foreman, Converse Coal Yard.
McCarty, Patrick J.,	588 Sumner ave.,	Commercial Traveler, Wheeler & Lovejoy, N. Y. City.
McCulloch, Henry B.,	38 Clifton ave.,	Car Tracer, N. Y., N. H. & H. R. R.
McDonald, John, Jr.,	346 Chestnut st.,	Proprietor Variety Store, 344 Chestnut st.
McElwain, Charles C.,	46 Federal st.,	Manufacturer, 37 Harrison ave.
McGregor, Robert S.,	869 Worthington st.,	Foreman, Milton Bradley, Cross st.
McGuire, James,	319 Main st., I. O.,	Clerk, Chapman Valve Mfg. Co. Pine st., I. O.
McIntire, Arthur H.,	102 Hickory st.,	Carpenter, Dept. of Public Parks.
McIntire, Herbert W.,	49 Holyoke st.,	Sales Stables, 61 and 62 Market st.
McKeown, Thomas R.,	34 Allen ave.,	Advertising Man, Bridge st.
McKinney, Richard,	24 Oak Grove ave.,	Real Estate Business, 537 Main st.
McKnight, Charles H.,	62 Clarendon st.,	Real Estate Dealer, 137½ State st.
McMahon, Mortimer P.,	273 North st.,	Compositor, 381 Main st.
McNamara, William H.,	200 Main st.,	Tailor, 200 Main st.
McNulty, Michael H.,	328 No. Main st.,	Clerk, 392 Main st.
Meacham, Edward A.,	19 Grenada terrace,	Builder, 19 Grenada terrace.
Menard, Joseph W.,	37 Jefferson ave.,	Merchant, 8 Main st.
Merriam, Edward A.,	111 Princeton st.,	Treasurer, 58 Harrison ave.
Merriam, Frank A.,	54 Jefferson ave.,	Clerk, 379 Main st.
Merriam, G. Frank,	205 Florida st.,	President, Holyoke Card & Paper Co., Brightwood.
Merriam, George S.,	Crescent ave.,	Author, Crescent ave.
Merry, Alfred B.,	31 Winchester st.,	Salesman, Cottalap Burlap Co., Somerville, N. J.
Mesick, DeWitt,	57 Bradford st.,	Clerk, 165 Main st.
Milburn, Lee,	494 Belmont ave.,	Hardwood Floor Maker, 357 Main st.
Millea, Francis J.,	329 Dickinson st.,	Plating and Pipe Covering, 47 Taylor st.
Miller, James R.,	34 Avon place,	Banker, Chapin National Bank.
Miller, Willie E.,	25 Olive st.,	Miller Transfer Co., Railroad Station.
Miner, Ellis W.,	114 Calhoun st.,	Real Estate, 114 Calhoun st.
Miner, Ellis W., Jr.,	114 Calhoun st.,	Paymaster, 53 Wilbraham rd.
Mitchell, John,	145 Bond st.,	Clerk, 95 Fulton st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Mitchell, Patrick J.,	145 Bond st.,	Grain Merchant, 95 Fulton st.
Monroe, Charles D.,	212 Bay st.,	Ins. Agent, 25 Harrison ave.
Monroe, Charles E.,	164 Alden st.,	Optician, 374 Main st.
Moreau, Charles L.,	22 Franklin st.,	Foreman, B. & A. R. R.
Morris, William R.,	179 Wilbraham road,	Manufacturer, 75 Temple st.
Morrison, John F.,	162 Bowdoin st.,	Foreman, 312 Birnie ave.
Morrissey, James R.,	246 Main st., I. O.,	Merchant, 141 Main st., I. O.
Morse, Frank R.,	31 Salem st.,	Shoe Dealer, 382 Main st.
Morse, Fred S.,	78 Bowdoin st.,	Wholesale Lumber Dealer, 7-51 Worthington st.
Mulligan, Charles H.,	43 Ridgewood terrace,	Retired.
Mulligan, Joseph T.,	265 Fulton st.,	Machinist, Westfield.
Mullins, Walter H.,	69 Harvard st.,	Bond Salesman, 69 Harvard st.
Mulloney, James F.,	11 Murray Hill ave.,	Photographer, 43 Cross st.
Munn, Charles C.,	95 Sumner ave.,	Commercial Traveler, Thompsonville, Ct.
Munsell, Henry T.,	607 Main st.,	Plumber, 135 Union st.
Munsell, Samuel W.,	62 Pearl st.,	Insurance Secretary, 31 Elm st.
Munson, Anson P.,	79 Oak st.,	Polisher, 35½ Pine st. ct.
Murkland, Woodward E.,	44 Lafayette st.,	Contractor, 44 Lafayette st.
Murphy, Edward J.,	20 Byers st.,	Real Estate Dealer, Cor. Main and Bridge sts.
Murphy, John F.,	89 Linden st.,	Machinist, N. Y. C. Shop, West Springfield.
Murphy, Timothy,	67 Linden st.,	Harness Maker, 43 Lyman st.
Murray, Charles E.,	162 Chestnut st.,	Real Estate, Cor. Main and Lyman sts.
Murray, J. Frank,	61 Crystal ave.,	Superintendent, 133 State st.
Murray, John J.,	399 Central st.,	Stenographer, 423 Main st.
Murray, William J.,	113 Hancock st.,	Foreman, Cor. Broad and Hanover sts.
Myrick, Herbert,	151 Bowdoin st.,	Publisher, 29 Worthington st.
Nelson, Edward A.,	18 Clinton st.,	Automobile Dealer, 216 Main st.
Nesbitt, Samuel W.,	29 Portland st.,	Foreman, 336 Birnie ave.
Neubauer, J. Christian,	16 Howard st.,	Physical Director, German Turners.
Nevins, William H.,	150 Pearl st.,	Proprietor, Cor. Dwight and Bridge sts.
Newdick, Edwin W.,	27 Pleasant st.,	Editor, Board of Trade.
Newton, Chester P.,	627 Chestnut st.,	General Engineering Co., 318 Main st.
Nicholson, J. Ernest,	42 Whittier ave.,	Clerk, 29 Worthington st.
Niles, Orville W.,	43 Calhoun st.,	Commercial Traveler, Holyoke.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Nims, Herbert E.,	166 Princeton st.,	Chemist, Fiberloid Co., I. O.
Nobert, Joseph A.,	78 Franklin st.,	Laborer, Not Employed.
Nolan, John L.,	109 Greenwood st.,	Painter, 109 Greenwood st.
Noonan, Charles H.,	220 Pendleton ave.,	Ice Dealer, 220 Pendleton ave.
Nooney, Howard B.,	5 Clifton ave.,	Salesman, 811 State st.
Norton, William H.,	414 No. Main st.,	Shipping Clerk, 392 Main st.
Noyes, Edward B.,	402 Central st.,	Buyer, 390-396 Main st.
Nutting, Frank,	810 Main st.,	Musician, 810 Main st.
Oatman, Edgar J.,	780 Chestnut st.,	Florist, 778 Chestnut st.
O'Brien, Eugene A.,	380 Orange st.,	Conductor, Spfld. St. Ry. Co.
O'Brien, John,	156 Florence st.,	Foreman and Shipping Clerk, Cor. Willow and Park sts.
O'Brien, John J.,	112 Greenwood st.,	Hack Driver, 67 Market st.
O'Brien, Lawrence F.,	159 State st.,	Real Estate, 159 State st.
O'Brien, Patrick J.,	68 Holyoke st.,	Type-Setter, Cor. Dwight and Worthington sts.
O'Connell, James F.,	84 Everett st.,	Foreman, 983 Main st.
O'Connell, Morgan D.,	74 Everett st.,	Contractor, 74 Everett st.
O'Connell, William,	236 Tyler st.,	Surveyor of Lumber, 850 State st.
O'Connor, Michael J.,	123 Greenwood st.,	Cigar Manufacturer, 22 East Court st.
O'Connor, William H.,	22 Lowell st.,	Commercial Traveler.
O'Donnell, Bartholomew J.,	87 Cass st.,	Watchman, Albert Steiger Co.
O'Donnell, John J.,	109 Main st.,	Laborer, Not Employed.
O'Neil, Joseph B.,	129 Pendleton ave.,	Electrical Worker, 531 Main st.
Oppenheimer, Berthold A.,	49 Mapledell st.,	Insurance, 14 Fort st.
Osgood, Herbert L.,	198 North st.,	Agent, Spfld. St. Ry. Co.
Otto, August R.,	Washington road,	Tool Maker, Washington road.
Otto, John,	61 Sheldon st.,	Painter, 61 Sheldon st.
Otto, John C.,	38 Greenleaf st.,	Printer, 196 Worthington st.
Packard, Alfred S.,	15 Myrtle st.,	Bookkeeper, American Writing Paper Co., Holyoke.
Packard, Azel A.,	254 Union st.,	Merchant, Main and Hillman sts.
Page, Frank H.,	116 Ingersoll grove,	President, 60 Hampden st.
Paige, Ralph H.,	S. S. Buena Vista plaza,	Retired.
Painter, Harry R.,	25 Stebbins st.,	Bookkeeper, 283 Worthington st.
Palmer, Frank A.,	48 Kenwood park,	Commercial Traveler, 48 Kenwood park.
Pardoe, William A.,	9 Calhoun st.,	Designer, 9 Calhoun st.
Parker, Frederick D.,	241 Tyler st.,	Teamster and Salesman, 130 Lyman st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Parker, Wallace A.,	444 Central st.,	Foreman, 283 Worthington st.
Parrish, Walter A.,	45 Locust st.,	Clerk, 15 Elm st.
Partridge, Frederick J.,	45 Armory st.,	Order Clerk, Taber-Prang Art Co.
Patrell, Oliver L.,	390 Hancock st.,	Baker, 398 Hancock st.
Pease, Charles L.,	59 Tyler st.,	Milk Peddler, Willow st.
Pease, Clarence A.,	332 White st.,	Clerk, 813 State st.
Pease, Edward W.,	409 Oakland st.,	Dealer in Real Estate, 409 Oakland st.
Pease, Frank J.,	113 Firglade ave.,	Teamster, 37 Sanford st.
Pease, Raymond W.,	26 Allen st.,	Foreman, 128 State st.
Pease, Samuel S.,	24 Mountainview st.,	Druggist, Cor. Main and Sanford sts.
Pease, Theodore I.,	930 State st.,	Lumber Dealer, 310 Main st.
Pease, Walter S.,	33 Lafayette st.,	Vice-President, 88 Birnie ave.
Peirce, George W.,	240 North st.,	Foreman, Holyoke Card & Paper Co., Brightwood.
Pelkey, George Albert,	363 No. Main st.,	Painter, 363 No. Main st.
Perkins, Charles E.,	34 Hebron st.,	Photographer, 82-86 Worthington st.
Perry, George T.,	656 Chestnut st.,	Undertaker, 15 Clinton st.
Phelan, Edward J.,	162 Eastern ave.,	Barrel Dealer, 162 Eastern ave.
Phillips, Arthur E.,	55 Beaumont st.,	Printer, 292 Main st.
Phillips, George W.,	255 Main st.,	Ins. Agent, 538-540 Main st.
Pike, Frederic C.,	4 Pasadena ave.,	Com. Traveler, Olds Engine Co., Boston.
Pike, Harold L.,	52 Thomas st.,	Bookbinder, Myrick building.
Pillsbury, Alfred F. H.,	1176 Worthington st.,	R. H. Smith Co., 293 Main st.
Pinney, Richard W.,	44 Allen st.,	Grocer, 490 Mill st.
Pirnie, George,	112 Magnolia terrace,	Whip Manufacturer, Hanover st.
Pitkin, Paul H., Jr.,	619 Chestnut st.,	School Teacher, 619 Chestnut st.
Pool, Thomas,	60 Lexington ave.,	Foreman, Cheney Bigelow Wire Works.
Porter, Alfred N.,	55 Ringgold st.,	Paper Cutter, 338 Worthington st.
Porter, Charles B.,	14 Wilmont st.,	Printer, Cor. Dwight and Worthington sts.
Potter, Charles S.,	38 Westford ave.,	Lumber Merchant, 850 State st.
Powell, Benjamin,	109 Allen st.,	Wood Eave Troughs, 109 Allen st.
Powers, Edward S.,	453 Sumner ave.,	Real Estate Dealer, 474 Mill st.
Powers, Frank B.,	122 Pearl st.,	Manufacturer, 54 Taylor st.
Powers, Fred H.,	86 Westford ave.,	Manager, 138 Wilbraham ave.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION
Powers, Lewis J., Jr.,	302 Union st.,	Paper Manufacturer, Wason ave.
Pratt, Austin J.,	25 Catharine st.,	Plumber, 19 Wilbraham road.
Pratt, George Dwight,	120 Maple st.,	Retired.
Proctor, Charles B.,	257 Fort Pleasant ave.,	Real Estate Dlr., 476 Main st.
Prouty, Henrie A.,	72 Harvard st.,	Traveling Salesman, Minnesota.
Pulcifer, Irving S.,	21 Blake Hill,	Bank Officer, 500 Main st.
Pulcifer, William P.,	49 Holyoke st.,	Not Employed.
Putney, Lewis G.,	735 State st.,	Real Estate Dlr., 735 State st.
Pynchon, Joseph F.,	52 Oxford st.,	Clerk, 318 Main st.
Quilty, William J.,	148 Central st.,	Tailor, 495 Main st.
Quimby, Irving A.,	30 Pearl st.,	Wholesale Crockery, 9 Hampden st.
Quinlivan, Thomas P.,	417 Chestnut st.,	Car Inspector, B. & A.
Quinn, Patrick H.,	609 State st.,	Real Estate, 539 State st.
Quinn, Timothy,	14 Prospect st.,	Tinsmith, 14 Prospect st.
Quirk, Dennis J.,	122 Magazine st.,	Plumber, 142 Dwight st.
Ranselhousen, Edward B.,	37 Sherman st.,	Insurance, General Agent, 423 Main st.
Rathbun, Ralph A.,	119 Westford ave.,	Teller, 407 Main st.
Rayner, William T.,	513 Belmont ave.,	Treasurer, 185 Lyman st.
Read, Stacey G.,	397 Eastern ave.,	Manager, 3 Fort st.
Reed, John W.,	350 St. James ave.,	Manufacturer, Westfield, Mass.
Remillard, Camille R.,	25 Huntington st.,	Restaurant, 415 High st., Holyoke.
Remington, Almon E.,	76 Mill st.,	Bookkeeper, 399 Main st.
Remington, Philip H.,	198 Florida st.,	Treasurer, 318 Main st.
Remkus, Edwin G.,	27 Westernview st.,	Insurance, 68 Bridge st.
Rice, Clifford F.,	562 No. Main st.,	Supt., Wason Manufacturing Co., Brightwood.
Rice, Frank C.,	104 Maple st.,	Lumber Dealer, 307 Main st.
Rice, Leslie E.,	207 Pine st.,	Master Mechanic, Fiberloid Co., I. O.,
Rich, Edwin C.,	575 Union st.,	Foreman, 146 State st.
Rich, Henry F.,	80 Buckingham st.,	Salesman, 538-540 Main st.
Richards, Edward N.,	30 Huntington st.,	Foreman, Wason Manufacturing Co., Brightwood.
Richards, Fred J.,	417 Belmont ave.,	Dealer in Cotton Waste, So. Main st.
Richards, Harold H.,	43 Massachusetts ave.,	Manager, 43 Massachusetts ave.
Richards, Louis H.,	67 Euclid ave.,	Manager, 153 Bridge st.
Richardson, Arthur E.,	49 No. Main st.,	Foreman, 357 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Richardson, Delos A.,	182 Maple st.,	Traveling Salesman, Dr. Lesure Vet. Remedies.
Richmond, Edward A.,	348 Walnut st.,	Druggist, 643 Main st.
Riga, Joseph G.,	28 Leyfred terrace,	Importer of Gun Barrels, 28 Leyfred terrace.
Ripley, Elon V. M.,	64 Church st.,	Com. Traveler, 64 Church st.
Ripley, James H.,	65 Ingersoll grove,	Retired.
Rivard, Charles R.,	32 Holyoke st.,	Electrician, Birnie ave., Brightwood.
Robbins, Frank A.,	33 Mulberry st.,	Jeweler, 123 State st.
Robbins, George W.,	229 Wilbraham road,	Lumber Merchant, 229 Wilbraham road.
Robert, Frank E.,	185 Main st., I. O.,	Carpenter, LaBelle Bros., I. O.
Roberts, Clinton L.,	257 Dickinson st.,	Grocer, 2 Wilmont st.
Roberts, John W.,	33 Kenwood park,	Insurance, 29 Worthington st.
Robinson, Louis,	66 Holyoke st.,	Shoe Dealer, 130 Main st.
Robinson, William A. H.,	44 Byers st.,	Jeweler, 360 Main st.
Roche, Timothy R.,	11 Frost st.,	Gardener, About the City.
Roche, William J.,	51 Franklin st.,	Dealer in Machinery, 51 Franklin st.
Rodhouse, Walter F.,	83 North st.,	Manufacturer, 216 Worthington st.
Rogers, Arthur H.,	22 Temple st.,	Manufacturer, Cor. Main and Worthington sts.
Rogers, Clifford R.,	38 School st.,	Paper Manufacturer, Huntington, Mass.
Rollins, Harvey E.,	12 Osgood st.,	Clerk, 140 Main st.
Rolhauser, George F.,	75 Elm st.,	Filer, Willow and Stockbridge sts.
Rood, Fred K.,	760 Chestnut st.,	Meat and Groceries, 144 Main st.
Root, Cassius D.,	323 Central st.,	Traveling Salesman, Borne, Scrymser Co., Boston, Mass.
Ross, Albert J.,	66 Cherry st.,	Manager, 37 Lyman st.
Rowley, Arthur M.,	S. S. Crescent ave.,	Clerk, 29 Worthington st.
Rowley, Robert H.,	78 Bloomfield st.,	Carpenter and Builder, 78 Bloomfield st.
Roy, Joseph G.,	907 Armory st.,	Contractor, 907 Armory st.
Royce, Charles A.,	29 Edwards st.,	Proprietor, 21-25 Clinton st.
Rush, William,	575 Berkshire st., I. O.,	Real Est. Agent, 431 Main st.
Russell, Charles P.,	99 Alden st.,	Treasurer, 47-49 Taylor st.
Russell, Charles S.,	132 Marion st.,	Printer, 29 Worthington st.
Russell, Charles T.,	48 Greenwood st.,	Storekeeper, 103 Main st.
Russell, Napoleon,	191 Springfield st.,	Builder, 300 Birnie ave.
Russell, William J.,	71 Allen st.,	Machinist, 49 Taylor st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Ryan, Charles V.,	664 Chestnut st.,	Druggist, 161 Main st.
Ryan, Dennis C.,	266 King st.,	Stationary Engineer, 53 Wilbraham road.
Sackett, Frank H.,	831 Worthington st.,	Contractor, 831 Worthington st.
Sackett, James C.,	156 Spring st.,	Supt., Oak Grove Cemetery.
Sackett, William R.,	24 Brown st.,	Clerk, 35 Worthington st.
Sadler, William L.,	48 Magnolia terrace,	Druggist, 530 Main st.
Samble, Nicholas T.,	57 Hebron street,	Asst. Foreman, 381 Main st.
Samble, William Edward, Jr.,	5 Logan st.,	Printer, 381 Main st.
Samble, William Edward, Sr.,	5 Logan st.,	Printer, 381 Main st.
Sampson, Frederick H.,	61 Sargeant st.,	Not Employed.
Sampson, Thomas P.,	15 Bay st.,	Undertaker, 345 Worthington st.
Sanderson, William E.,	80 Hyde ave.,	Purchasing Agent, Wason Mfg. Co., Brightwood.
Sanford, Isaac T.,	226 Armory st.,	Foreman, Taber-Prang Art Co.
Sapiro, Max,	534 Chestnut st.,	Junk Dealer, 96 Ferry st.
Saunders, John A.,	120 Florence st.,	Wood Worker, Cor. Cross and Willow sts.
Sawtell, J. Otis,	162 Westminster st.,	Gents' Furnishings, 478 Main st.
Schelb, Justus A.,	346 Liberty st.,	Cook, 215 Worthington st.
Scheuing, Louis C.,	320 Union st.,	Manufacturer, Cor. Orleans and Quincy sts.
Schnetzer, George W.,	47 Calhoun st.,	Baker, 4 Main st.
Schofield, Harry,	512 Chestnut st.,	Foreman, Cor. Dwight and Taylor sts.
Schultz, August,	148 King st.,	Lithographer, 140 Wilbraham ave.
Scott, E. Clarence,	26 Winchester st.,	Machinist, Wilbraham road.
Scott, Edward R.,	349 Walnut st.,	Milk Peddler, 349 Walnut st.
Scott, Marshall F.,	48 Warner place,	Laundryman, 143 Bridge st.
Scullane, Frank E.,	603 Chestnut st.,	Lithographer, 603 Chestnut st.
Selden, Paul B.,	40 Locust st.,	Electrician, foot of State st.
Severy, William G.,	234 North st.,	Traveling Salesman, Fisk ave.
Seyler, Edward F.,	702 Belmont ave.,	Dealer in Real Estate, 318 Main st.
Shaftoe, James T.,	30 Arch st.,	Optician, 62 Main st.
Sharrocks, John,	58 Spring st.,	Not Employed.
Shaw, Daniel,	109 Bond st.,	Machinists' Helper, N. Y. C. Shops, West Springfield.
Shaw, Harry G.,	171 Walnut st.,	Corset Cutter, Cor. Dwight and Taylor sts.
Shaw, J. Wesley,	371 St. James ave.,	Dentist, 318 Main st.
Shaw, John L.,	95 High st.,	Adv. Solicitor, 381 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Shea, Jeremiah L.,	14 Columbia terrace,	Building Contractor, 14 Columbia terrace.
Shea, Patrick J.,	49 Alden st.,	Brick Layer.
Sheckler, John A.,	760 Chestnut st.,	Horse Dealer, 115 Main st.
Sheehan, Edward J.,	45 Linden st.,	Salesman, The Friend Jewelry Co.
Sheehan, James T.,	45 Linden st.,	Dentist, 351 Main st.
Sheehan, Lawrence J.,	38 Greenwich st.,	Printer, Republican Office.
Sheehan, Patrick,	401 Chestnut st.,	Switchman, B. & M. R. R.
Sheehan, Paul,	45 Hawthorne st.,	Cigar Maker, Cor. Dwight and Bridge sts.
Sheehan, Thomas F.,	114 Armory st.,	Dealer in Monuments, 535 Main st.
Sheldon, William O.,	129 Westminster st.,	Meat Market, 132 State st.
Shepardson, Perry L.,	24 Calhoun st.,	Shipping Clerk, 345 Main st.
Shepherd, George W.,	17 Ormond st.,	Dealer in Butter and Eggs, 17 Ormond st.
Sherburne, James S.,	30 Roseland st.,	Type Setter, Dwight st.
Sherwood, Ira T.,	57 Acushnet ave.,	Clerk, 478 Main st.
Short, Jonathan,	Eagle st.,	Builder, Eagle st.
Shuart, William H.,	27 Mulberry st.,	Paper Manufacturer, West Springfield.
Shumway, Frederick A.,	364 Belmont ave.,	Commercial Traveler, Lexington ave., N. Y.
Shutts, George L.,	54 Allen st.,	Clerk, Fiberloid Co., I. O.
Sikes, Walter S.,	93 Catharine st.,	Druggist, Cor. Eastern ave. and State sts.
Simons, John F.,	154 Alden st.,	Librarian, 287 Hickory st.
Simons, Robert M.,	36 Boylston st.,	Cigar Maker, 275 Main st.
Simons, William C.,	200 Maple st.,	Banker, Republican building.
Sleigh, George D.,	80 Westford ave.,	Buyer, 345 Main st.
Sleigh, William B.,	64 Westford ave.,	Manager, 48 Harrison ave.
Small, Lewis C.,	504 Liberty st.,	Salesman, 130 Lyman st.
Smith, Dearing A.,	161 Alden st.,	Salesman, 538-540 Main st.
Smith, Edmund H.,	75 Mulberry st.,	Tobacco Merchant, 23 Hampden st.
Smith, Edward O.,	196 Pearl st.,	Wholesale Grocer, 43 Lyman st.
Smith, Elmer H.,	82 Boylston st.,	Captain, Steamboat, Foot of Elm st.
Smith, Fred C.,	83 Walnut st.,	Bowling Alley, 211 Worthington st.
Smith, John B.,	240 Central st.,	Broker, 374 Main st.
Smith, John D.,	35 Dartmouth st.,	Pharmacist, 275 Main st.
Smith, Marcus H.,	107 Jefferson ave.,	Salesman, 20-26 Lyman st.
Snow, Emmons E..	754 Chestnut st.,	Printer, 21 Worthington st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Somes, J. Kirk,	184 Maple st..	Agent, 216 Besse building.
Southworth, Mase S.,	6 Temple st.,	Chemist, 127 Mulberry st.
Spear, Lewis J.,	24 Besse place,	Restaurant Keeper, 329 Main st.
Spence, Henry C.,	111 Myrtle st., I. O.,	Manager, Hough Cash Recorder Co., I. O.
Spencer, A. Seymour,	59 Avon place,	Purchasing Agent, 60 Hampden st.
Spicer, Ernest F.,	10 Chestnut st.,	Clerk, 65 State st.
Squire, Harry N.,	560 Sumner ave.,	Traveling Salesman.
Stacy, Richard H.,	11 Kenwood park,	Machinist, 41 Taylor st.
Stadden, William H.,	10 Chestnut st.,	President, 129 State st.
Stebbins, George M.,	41 Churchill st.,	Traveling Salesman, 41 Churchill st.
Stebbins, John W.,	Crescent ave.,	Agent, American Writing Paper Co., Holyoke.
Stedman, Fred C.,	104 Belmont ave.,	Insurance Agent, 7-51 Worthington st.
Stevenson, William M.,	88 Hampden st., I. O.,	Manager, Hodges Fiber Carpet Co., I. O.
Stibbs, William E.,	31 Westford ave.,	Shoe Salesman, Jamaica Plain. Boston.
Still, Warren A.,	10 Birnie ave.,	Machinist, Birnie ave.
St. John, Peter,	275 Pine st..	Barber, 8 Sanford st.
Stocker, Arthur B.,	782 Belmont ave.,	Editor, 292 Main st.
Stoddard, Edgar A.,	102 Bay st.,	Broker, 231 Main st.
Stone, Charles A.,	176 Pearl st.,	Merchant, 55-63 Lyman st.
Stone, William C.,	21 Princeton st.,	Asst. Librarian, State st.
Strout, Fred P.,	565 Union st.,	Bookkeeper, 346-348 Main st.
Sturgis, Frank W.,	948 State st.,	Purchasing Agt., Ludlow, Mass.
Sturtevant, Fayette L.,	849 Main st.,	Buyer, 390-396 Main st.
Sturtevant, Fred H.,	219 Florida st..	Paper Mfr., Holyoke, Mass.
Sullivan, Daniel J.,	263 Chestnut st.,	Proprietor, 259 Chestnut st.
Sullivan, James A.,	57 Everett st.,	Assistant Secretary, 29 Worthington st.
Sullivan, James E.,	55 Maplewood terrace,	Editor, 82 Worthington st.
Sullivan, John D.,	28 Alden st.,	Mason, 28 Alden st.
Sullivan, John F.,	28 Roseland st.,	Newspaper Reporter, 292 Main st.
Sullivan, Killian,	63 Stebbins st.,	Merchant Grocer, 558 Union st.
Sunter, Alexander E.,	77 Alexander st.,	Druggist, Cor. Carew and Chestnut sts.
Sutton, Edward O.,	12 Ingraham ave.,	Insurance, 500 Main st.
Swan, Frank N.,	70 Bellevue ave.,	Manufacturer, Hanover st.
Swan, Wilbur M.,	50 Bellevue ave.,	Manufacturer, Hanover st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Sweeney, William A.,	54 Locust st.,	Undertaker, 179 Chestnut st.
Swift, Samuel C.,	18 Princeton st.,	Coat and Apron Supply, 18 Princeton st.
Swords, Peter J.,	161 Hancock st.,	Plumber, 161 Hancock st.
Taft, Edward H.,	125 Wilbraham road,	Ice Dealer, Hickory st.
Taft, George F.,	55 North st.,	Trav. Salesman, 182 Lyman st.
Tait, George G.,	37 Vinton st.,	Milk Dealer, 37 Vinton st.
Talbot, Arthur R.,	65 Holly st., I. O.,	Clerk, Fiberloid Co., I. O.
Tapley, William W.,	266 Union st.,	Manufacturer, Cor. Cross and Willow sts.
Taylor, Albert W.,	219 No. Main st.,	Druggist, 326 No. Main st.
Taylor, Edward L.,	25 Madison ave.,	Clerk, 310 Main st.
Taylor, Edwin L.,	617½ Main st.,	Photographer, Unemployed.
Taylor, Crosland, 2d,	174 King st.,	Foreman, 196 Worthington st.
Taylor, George,	15 Vassar st.,	Bookkeeper, 384 Main st.
Tehan, James H.,	289 Mill st.,	Manager, 367 Main st.
Tehan, Thomas W.,	27 Ashley st.,	Delivery Man, 357 Main st.
Thacker, George,	74 Alexander st.,	Clerk, 357 Main st.
Thacker, William R.,	42 Chase ave.,	Paper Dealer, 109 Bridge st.
Thayer, Charles E.,	32 Besse place,	Clerk, 373-375 Main st.
Thayer, Charles H.,	75 Berkshire st., I. O.,	Manager, 193 Worcester st., I.O.
Thayer, Harrison C.,	14 Spruce st.,	Foreman, 9 Randall ave.
Thomas, Fred G.,	7 Pearl st. place,	Clerk, 91 Dwight st.
Thomas, George H.,	20 Allen st,	Clerk, 485 Central st.
Thompson, Albert G.,	4 Hampden st., I. O.,	Engineer, Pine st., I. O.
Thompson, Charles G.,	805 White st.,	Dealer in Real Estate, 805 White st.
Tibbetts, Oscar R.,	3 Hampden st., I. O.,	Pattern Maker, Pine st., I. O.
Tindal, David,	113 Lebanon st.,	Carpenter, Heywood ave.
Tinkham, Francis M.,	56 Temple st.,	Manufacturer, 228 Birnie ave.
Titus, William M.,	Hotel Kimball,	Merchant, Cor. Dwight and Taylor sts.
Tobey, Frank G.,	46 School st.,	Retired.
Toomey, James J.,	12 Hancock st.,	Foreman, 837 State st.
Toomey, Thomas D.,	89 Linden st.,	Printer, Stevens-Duryea Co., Chicopee Falls.
Tourtellotte, Albert D.,	50 Charles st.,	Machinist, 44 Hampden st.
Tower, Edward F.,	78 Plainfield st.,	Agent, B. & M. R. R.
Tower, Frank W.,	63 Spring st.,	Plumbing Inspector, 44 Pynchon st.
Towne, Arthur H.,	99 Sherman st.,	Civil Engineer, 17 Hampden st.
Towne, Willis L.,	10 Chestnut st.,	Artist, 327 Main st.
True, Harry P.,	29 Spring st.,	Jeweler, 408 Main st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Truesdell, William E.,	74 Kenwood park,	Merchant, 577 Main st.
Tucker, Andrew J.,	254 Pearl st.,	President, Heywood and Warwick aves.
Tucker, Edward H.,	53 Princeton st.,	Manager, 200 Worthington st.
Tucker, Samuel D.,	28 Birnie ave.,	Draughtsman, Wason ave. cor. Birnie ave.
Tufts, Willard E.,	156 Bowdoin st.,	Butcher, 8 Walnut st.
Turner, George R.,	8 Clifton ave.,	Wagon Maker, Hubbard ave. and Dale st.
Underhill, Arthur W.,	83 Ingersoll grove,	President, 46 Harrison ave.
Underwood, H. Melvern,	257 Wilbraham road,	Salesman, 22 Dwight st.
Underwood, Roy E.,	241 Wilbraham road,	Paymaster, Button Shop, Howard st.
Van DeWater, John H.,	46 Calhoun st.,	Plumber, 72 Worthington st.
Van Norman, Charles E.,	98 Yale st.,	Manager, 160 Wilbraham ave.
Van Norman, George H.,	97 Clarendon st.,	Photographer, Rear Massasoit House.
Vaughan, Ellwood B.,	28 Whittier ave.,	Contractor, South Main st.
Veley, George W.,	79 Montrose st.,	Draughtsman, 88 Birnie ave.
Vester, George F., Jr.,	15 Winthrop st.,	Tailor, 485 Main st.
Wadleigh, William L.,	172 Oak st., I. O.,	Superintendent, Bausch Mach. Tool Co., Brightwood.
Wadsworth, Robert E.,	41 Mattoon st.,	Filer, Stockbridge st.
Wahlberg, Adolph,	42 Spruce st.,	Unemployed.
Walbridge, Henry L.,	17 Mattoon st.,	Traveling Salesman, 390-396 Main st.
Walker, Leonard J.,	160 Oakland st.,	Carpenter, 12 Cass st.
Wallace, Andrew B., Jr.,	47 Ridgewood terrace,	Merchant, Cor. Main and Vernon sts.
Wallace, George D.,	27 John st.,	Foreman, 354 Birnie ave.
Wallace, William W.,	207 No. Main st.,	Musician, 207 Main st.
Walls, Charles H.,	63 Morris st.,	Carpenter, 89 Morris st.
Walls, J. Francis,	45 Colton st.,	Plumber, 441 State st.
Walsh, Frank T.,	54 Merwin st.,	Bookkeeper, 113 Bridge st.
Walsh, John J.,	93 Bond st.,	Mason, 93 Bond st.
Walsh, Thomas P.,	665 Belmont ave.,	Insurance, 318 Main st.
Walsh, William P.,	29 King st.,	Carpenter, 97 Dwight st.
Walters, Arthur E.,	41 Keith st.,	Grocer, 365 Belmont ave.
Walters, George F.,	305 Bay st.,	Traveling Salesman, Bridgeport, Ct.
Walters, William H.,	305 Bay st.,	Insurance Agent, Hartford, Ct.
Warburton, Charles S.,	N. S. Mulberry st.,	Retired.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Warner, Dwight H.,	279 Orange st.,	Carpenter and Builder, 279 Orange st.
Warner, Frank A.,	1470 State st.,	Parcel Delivery, 1470 State st.
Warner, Fred W.,	W. S. Parker st., I. O.,	Real Estate Agent, 373½ Main st.
Warner, Stephen O.,	600 Union st.,	Carpenter, 600 Union st.
Warner, Walter H.,	55 Spring st.,	Die Sinker, 327 Main st.
Warren, Robert F.,	20 Myrtle terrace,	Flour Merchant, 31 Hampden st.
Warriner, Horace A.,	28 Wilmont st.,	Editor, Cor. Dwight and Worthington sts.
Washburn, Kirk N.,	53 Dartmouth st.,	Publisher, 29 Worthington st.
Waters, H. Goodman,	84 Maple st.,	Real Estate, 84 Maple st.
Watson, Addison H.,	832 Main st.,	Superintendent, 109 Mill st.
Webb, George S.,	754 Chestnut st.,	Electrician, Street Car Co.
Webber, Frank,	24 Besse place,	Manager, 303 Main st.
Webster, Eugene A..	32 Temple st.,	Druggist, 530 Main st.
Weeks, Joseph W., Jr.,	573 State st.,	Real Estate, 573 State st.
Welch, Thomas J.,	367½ Chestnut st.	Printer, Cor. Birnie ave. and Douglas st.
Welch, Thomas J.,	90 Franklin st.,	Electrotyper, 135 Dwight st.
Wells, Fred U.,	17 Jefferson ave.,	Laundry, 293 Main st.
Wells, George W.,	27 Groveland st.,	Carpenter, Forest Park.
Wernhoff, Svante,	45 Hayden ave.,	Employed at Wason Car Shops.
Wesson, Frank H.,	146 Long Hill st.,	Superintendent, Stockbridge st.
Wesson, Harold,	220 Maple st.,	Manufacturer, Stockbridge st.
Wesson, Joseph H.,	13 Federal st.,	Pistol Manufacturer, Stockbridge st.
Wesson, Walter H.,	302 Maple st.,	Manufacturer, Stockbridge st.
West, Frank N.,	300 Forest Park ave.,	Box Manufacturer, 225 Liberty st.
West, Louis W.,	507 Dickinson st.,	Machinist, Stockbridge st.
Westergren, Sven Johan,	46 Locust st.,	Engineer, 46 Locust st.
Wharfield, W. Fayette,	40 Church st.,	Bookkeeper, Agawam Mill, Mittineague.
Wheat, Harold A.,	65 Dartmouth st.,	Merchant, 349-359 Main st.
Wheeler, Charles A.,	7 Winthrop st.,	Real Estate Dealer, 274 Main st.
Wheeler, Frank E.,	29 Washington road,	Stock Broker, 318 Main st.
Wheeler, Fred N.,	141 Wilbraham road,	Druggist, State and Catharine sts.
Whitbeck, Arthur A.,	759 Belmont ave.,	Printer, 29 Worthington st.
Whitcomb, Frank D.,	133 Maple st.,	Tobacconist, 258 Main st.
Whitcomb, Henry J.,	9 Dwight st.,	Whitcomb Stove Co., 9 Dwight st.
White, Charles O.,	154 Hancock st.,	Ball Maker, 43 Lyman st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
White, Charles T.,	697 Belmont ave.,	Civil Engineer, 17 Hampden st.
White, Frank K.,	35 Hampden st., I. O.,	Foreman, D. P. Lillie Co., I. O.
White, Willard M.,	11 Sumner terrace,	Retired.
Whitney, Charles B.,	22 Churchill st.,	Manufacturer, 43 Lyman st.
Whittaker, Harry A.,	107 Marion st.,	Foreman, Cor. Dwight and Taylor sts.
Widlansky, Simon,	32 North st.,	Builder, 32 North st.
Wight, Ralph W.,	87 Hampden st., I. O.,	Treasurer, Chapman Valve Mfg. Co., I. O.
Wilcox, Leroy H.,	31 College st.,	Real Estate, 374 Main st.
Wilder, George T.,	130 Carew st.,	Clerk, 129 State st.
Willard, Charles E.,	787 Main st.,	Compositor, 381 Main st.
Willard, Walter H.,	261 North st.,	Assistant Superintendent, Birnie ave.
Williams, Henry J.,	225 Belmont ave.,	Bookkeeper, Hanover st.
Wilson, Robert,	445 Belmont ave.,	Plumber, 447 Belmont ave.
Winans, Harry J.,	65 Firglade ave.,	Clerk, 500 Main st.
Winans, Wilber N.,	22 Chase ave.,	Dealer in Oils, 53 Lyman st.
Wing, Cara M.,	24 Hawthorne st.,	Deliverer, 123 Florence st.
Wing, Leon M.,	24 Hawthorne st.,	Sign Writer, 275 Main st.
Winitsky, Harry,	17 Morgan st.,	Peddler, 36 Main st.
Witherell, Henry E.,	597 Chestnut st.,	Cashier, J. W. Whitcomb Co.
Wood, Fred L.,	263 Bay st.,	Agent, 21 Cypress st.
Wood, Lorrin S.,	113 High st.,	Builder, 12-14 Stockbridge st.
Woodard, Frank A.,	17 Orleans court,	Painter and Decorator, 17 Orleans court.
Woodbury, Milo K.,	672 Chestnut st.,	Grocer Dealer, 144 Main st.
Woods, Alfred E.,	26 Besse place,	Foreman, Freight House, Water st.
Woods, Edward W.,	461 Central st.,	Mail Clerk, 29 Worthington st.
Woodward, Arthur H.,	50 Walnut st.,	Assistant Superintendent, City.
Woodward, Louis B.,	104 Beaumont st.,	Buyer, 411 Main st.
Work, Rufus T.,	39 Mapledell st.,	Grocer, 813 State st.
Workheiser, Charles,	16 Howard st.,	Janitor, Masonic building.
Worthington, Albert E.,	229 No. Main st.	Asst. Superintendent, Holyoke.
Wright, Charles A.,	45 Bay st.,	Grocer, 473 State st.
Wright, Charles A. L.,	28 McKnight st.,	Civil Engineer, 43 Bridge st.
Wright Frederick E.,	115 Wilbraham road,	Salesman, Worthington st.
Wright, Harry A.,	95 Ingersoll grove,	Corset Manufacturer, Cor. Dwight st. and Harrison ave.
Wright, Henry S.,	18 Donald st.,	Automobile Worker, Chicopee Falls.
Wright, James F.,	47 Calhoun st.,	Compositor, 381 Main st.
Wuterich, George W.,	106 Grenada terrace,	Manager, 364 Main st.
Wyckoff, Richard T.,	145 Harvard st.,	President, 29 Worthington st.

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NAME.	RESIDENCE.	PLACE OF BUSINESS OR OCCUPATION.
Yarsley, Thomas P.,	45 Lowell st.,	Machinist, Not Employed.
Yerrall, George R.,	88 Maplewood terrace,	Treasurer, 236 Main st.
Young, Ernest F.,	53 Jefferson ave.,	Civil Engineer, 31 Bridge st.
Young, Eugene,	68 Euclid ave.,	Engraver, 68 Euclid ave.
Young, George D.,	43 Edwards st.,	Manager, 305 Main st.
Zick, Philip,	482 Chestnut st.,	Shoe Dealer, 28 Bridge st.

CITY OF SPRINGFIELD, June 8, 1911.

The foregoing is a list of jurors prepared for the City of Springfield under the provisions of law applicable thereto.

O. K. MERRILL,
W. W. BARTLETT,
JOHN W. NOLAN,
E. A. NEWELL,
Registrars of Voters.

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CITY PROPERTY.

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REPORT OF THE

COMMITTEE ON CITY PROPERTY.

December 28, 1911.

To the Mayor and the City Council of Springfield.

GENTLEMEN:—The Committee on City Property respectfully submits the following annual report for the year of 1911.

The Committee desires to take this opportunity to record its high appreciation of the diligence and capability of Mr. H. L. Dorman, whose long experience and exceptional qualifications as Schoolhouse Agent have made his services invaluable to the Committee. Under his direction the work of schoolhouse repairs has progressed smoothly and efficiently, and the Committee feels that the high standard required in this particular has been well maintained.

MUNICIPAL HEATING PLANT.

To this Committee has been assigned the duty of directing the new Municipal Heating Plant, and equipment has been purchased and a force organized which is now heating the Police and Fire Headquarters, and, under a contract with the A. E. Stephens Co., the incomplete auditorium.

AUTOMATIC STOKERS.

Automatic stokers have been installed at the Central High School, resulting in substantial economy of fuel.

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FIRE ESCAPES.

Fire escapes have been installed on the older school buildings of the city, which now conform more nearly to modern ideas concerning safety from fire.

OPEN-AIR SCHOOL.

At Lincoln School the Committee has installed in two rooms in the basement a kitchen, dining room, rest room, baths and lockers, co-operating with the Society for the Prevention of Tuberculosis in establishing an open-air school for anæmic children.

SUMNER AVENUE SCHOOL.

A new twelve-room school building has been erected on land owned by the city on Sumner avenue, to be known as the "Sumner Avenue School." This school will be opened about February 1st.

HIGH SCHOOL OF COMMERCE.

This Committee has departed from the recommendation of the preceding Committee, and has recommended the acquisition by condemnation of a tract of land adjacent to and south of the Technical High School, as a site for a High School of Commerce.

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An inventory of City Property as of November 30, 1911, is appended hereto:—

BIRNIE AVENUE EXTENSION.

Land,		$8,950 00

BOARD OF HEALTH.

Hospital for Contagious Diseases (unfinished), land and equipment, State street,	$22,200 00	
Dumping grounds at West street,	19,000 00	
Equipment of laboratory for milk inspection,	1,200 00	
Office supplies,	126 00	
Disinfectants,	37 00	
Medical inspection of schools, stationery,	53 00	
Swabs, sputum, and typhoid fever outfits,	55 00	
		$42,671 00

ENGINEERING DEPARTMENT.

Office furniture, including card index cabinets,	$450 00	
Books,	240 00	
6 transit instruments,	700 00	
Brunton pocket transit and Abney level,	40 00	
2 leveling instruments,	170 00	
Leveling rods, poles, and hatchets,	110 00	
Large draughting table and plan cabinet,	250 00	
Draughting instruments and office supplies,	255 00	
2 electric fans,	37 00	
Self-recording rain gauge,	100 00	
Steel tapes,	65 00	
Cement testing equipment,	50 00	
Typewriter,	70 00	
Photographic apparatus,	200 00	
Blue printing apparatus,	95 00	
		$2,832 00

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FIRE DEPARTMENT.	Land.	Buildings.	Equipment.	Total.
Armory Street	$1,200.00	$16,000.00	$7,236.00	$24,436.00
Bond Street	2,000.00	5,000.00	8,560.00	15,560.00
Boston Road		200.00	300.00	500.00
Chestnut Street	10,000.00	14,500.00	14,286.00	38,786.00
Court Street,	35,000.00	101,500.00	45,577.00	182,077.00
Hooker Street	3,900.00	20,400.00	8,217.00	32,517.00
Indian Orchard	1,200.00	16,000.00	8,060.00	25,260.00
Margaret Street	2,000.00	25,500.00	11,850.00	39,350.00
Mill Street	2,000.00	16,500.00	11,512.00	30,012.00
Mill River Lane	300.00	2,000.00	1,300.00	3,600.00
North Street	4,000.00			4,000.00
Oakland Street	2,000.00	11,000.00	10,217.00	23,217.00
Pine Street	2,500.00	27,000.00	9,216.00	38,716.00
Plainfield Street	1,200.00	10,500.00	3,017.00	14,717.00
Walnut Street	3,500.00	17,500.00	14,487.00	35,487.00
Winchester Square	7,000.00	18,000.00	17,317.00	42,317.00
Fire Alarm Service			108,000.00	108,000.00
	$77,800.00	$301,600.00	$279,152.00	$658,552.00

FORESTRY DEPARTMENT.

Real estate and buildings,	$18,000 00	
Machinery for insect work,	1,549 32	
Tools, ladders, carts, etc.,	546 66	
Nursery stock,	200 00	
One horse,	150 00	
Street signs, fixtures, etc.,	100 00	
Office furniture,	95 40	
Barn fixtures,	18 00	
Hay and grain,	15 00	
		$20,674 38

MISCELLANEOUS.

Land, Court street, site of old City Hall,	$54,000 00	
Land, Court street, site of old Police Station,	55,000 00	
Land, Pynchon street, site of old Fire Station,	40,000 00	
Rifle range, land, $8,750 00		
Rifle range, buildings and target, 13,404 00		
	22,154 00	
Naval battalion,	100 00	
Bath houses, North End and Watershops,	200 00	
Burial lot, Peabody cemetery,	50 00	
Amount carried forward,	$171,504 00	

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Amount brought forward,.....		$171,504 00	
Precinct railings and ballot counters,....		1,375 00	
Ballot boxes, ...		1,050 00	
Type, cases, etc., in possession of city printer, ...		1,250 00	
			$175,179 00

MUNICIPAL BUILDING.

Land, Building, } Old Pynchon Street School.			
Equipping building for city offices,.....		$3,883 00	
Furniture:—			
Assessors, ...	$2,593 00		
Auditor, ...	1,000 00		
City Collector, ...	1,228 00		
City Council rooms,.....	900 00		
Board of Health,.....	400 00		
City Clerk, ...	1,200 00		
City Treasurer, ...	1,450 00		
City Property Committee,..	50 00		
Mayor, ...	505 00		
Messenger, ...	165 00		
Overseers of the Poor,.....	1,201 25		
Sealer of Weights and Measures, including equipment (office in Water Department building), ...	375 00		
Street lighting, ...	88 10		
License Commission, furniture in Whitney building,	250 00		
Building Commissioners' Department, furniture in room in Odd Fellows' building, ...	460 16		
		11,865 51	
			$15,748 51

NORTH STREET EXTENSION.

Land and buildings,.....			$185,914 00

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PAUPER DEPARTMENT.

City farm, almshouse, and old infirmary,		$61,200 00	
Almshouse property,		15,000 00	
Smallpox hospital and land,		3,000 00	
Infirmary building, occupied by Board of Health,		9,500 00	
Almshouse:—			
Furniture, fixtures, and farm tools,	$8,171 05		
Provisions and supplies,	8,567 97		
Horses, cows, and other live stock,	2,380 00		
		19,119 02	
Hospital,		36,470 00	
Wayfarers' Lodge,		500 00	
Fixtures,	$1,087 75		
Supplies,	98 50		
Wood,	253 78		
		1,440 03	
			$146,229 05

POLICE DEPARTMENT.

Court street property,		$20,000 00	
Court street building,		116,000 00	
Indian Orchard property and building,		5,000 00	
Police signal system,		12,000 00	
Furniture, equipment, etc.:—			
Commissioners' office,	$316 00		
Chief's office,	126 00		
Clerk's office,	907 00		
Chief Inspector's office,	107 00		
Inspectors' room,	160 00		
Private room,	32 00		
Bertillon room,	745 50		
Deputy Chief's room,	112 00		
Captain's room,	83 00		
Signal and telephone room,	48 50		
		2,637 00	
Amount carried forward,		$155,637 00	

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Amount brought forward,		$155,637 00	
General office,	43 00		
Lieutenant's room,	68 00		
Emergency room,	60 00		
Matrons' rooms,	137 00		
Men's detention rooms,	38 00		
Women's detention rooms,	58 00		
Men's lockup,	10 00		
Women's lockup,	37 00		
Court room,	500 00		
Judge's room,	21 50		
Clerk of the Court's room,	20 00		
Prosecuting Attorney's room,	29 00		
Witness room,	8 00		
Juvenile court room,	37 00		
Sergeants' room,	87 00		
Locker room,	945 00		
Assembly room,	107 00		
Record room,	75 00		
Revolver range,	580 00		
Equipment,	3,589 50		
Storeroom,	147 00		
Janitors' supplies,	139 00		
Garage,	3,970 70		
Corridors, etc.,	667 00		
Bicycle room,	203 00		
Indian Orchard,	588 00		
		12,164 70	
			$167,801 70

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SCHOOL DEPARTMENT.	Brick or Wood.	Stories.	Land.	Buildings.	Furniture.	TOTAL.
Alden Street	B	2	$2,500.00	$14,000.00	$306.00	$16,806 00
Armory Street	B	2	4,500.00	145,300.00	2,633 26	152,433 26
Barrows	B	3	6,000.00	39,000.00	789.13	45,789 13
Belmont Avenue	W	2	2,500.00	5,400.00	200.00	8,100 00
Boston Road	W	2	500.00	6,900.00	1,100.00	8,500 00
Brightwood	B	2	3,000.00	34,800.00	1,430.00	39,230 00
Buckingham	B	2	11,000.00	48,000.00	2,351.00	61,351 00
Carew Street	B	2	8,500.00	45,000.00	946.00	54,446 00
*Carlisle	B	2	1,000.00	200.00		1,200.00
Central Street	B	3	9,000.00	64,000.00	1,708.15	74,708 15
Charles Street	B	2	1,700.00	14,000.00	248.00	15,948 00
Chestnut Street	B	3	41,000.00	244,000.00	6,273.78	291,273 78
*Dry Bridge	W	1	300.00	1,200.00		1,500.00
Eastern Avenue	B	2	3,200.00	30,000.00	1,074.00	34,274 00
East Union Street	B	2	2,700.00	23,000.00	1,235.00	26,935 00
*Emery Street	B	2	2,500.00	5,000.00		7,500 00
Five Mile Pond	B	2	100.00	2,000.00	45.00	2,145 00
Forest Park	B	3	19,000.00	85,000.00	2,400.00	106,400 00
Glenwood	B	2	1,500.00	16,000.00	747.31	18,247 31
High (Central)	B	3	100,000.00	350,000.00	15,000.00	465,000 00
High (Technical)	B	3	30,000.00	280,000.00	18,601.14	328,601 14
Homer Street	B	2	8,000.00	36,000.00	1,737.00	45,737 00
Hooker	B	3	50,000.00	60,000.00	2,315.00	112,315 00
Howard Street	B	3	13,000.00	46,000.00	2,825.00	61,825 00
Indian Orchard Grammar	B	3	4,000.00	65,000.00	1,423.00	70,423 00
Indian Orchard Primary	W	2	1,200.00	12,000.00	720.00	13,920 00
Jefferson Avenue	B	2	7,000.00	40,000.00	1,000.00	48,000 00
Kensington School	B	2	8,500.00	98,086.74	3,152.75	109,739 49
Lincoln School	B	2	9,950.00	87,116.52	4,136.01	101,202 53
Pynchon Street	B	2	26,600.00	38,000.00		64,600 00
School Street	B	2	13,500.00	18,000.00	600.00	32,100 00
Sixteen Acres	B	2	100.00	2,000.00	42.00	2,142 00
South Main Street	B	2	10,000.00	45,000.00	2,400.00	57,400 00
State Street	B	3	44,000.00	78,000.00	3,025.00	125,025 00
Strickland	B	2	3,000.00	20,000.00	613.00	23,613 00
Sumner Avenue	B	2	10,300.00	30,316.00		40,616 00
Tapley	B	2	10,000.00	70,000.00	2,469.91	82,469 91
Wachogue	W	1	100.00	800.00	35.00	935 00
White Street	B	2	4,500.00	49,500.00	2,066.32	56,066 32
William Street	B	1	8,000.00	58,000.00	2,200.00	68,200 00
Worthington Street	B	3	7,000.00	45,000.00	848.00	52,848 00
York Street			2,000.00			2,000 00
Office Building	W	2	7,900.00	3,000.00	1,200.00	12,100 00
			$499,150.00	$2,354,619.26	$89,895.76	$2,943,665 02

Value of books, supplies, and apparatus	$106,227 34
Kindergarten equipment and supplies	3,026 47
Technical School equipment and materials	22,914 73
Cooking School equipment and supplies	2,390 45
High School of Commerce, equipment and supplies	6,000 00
Vocational School equipment and supplies	7,311 15
Tools, and furniture, in hands of Schoolhouse Agent	373 20
Janitors' supplies, in hands of Schoolhouse Agent	780 77
Fuel on hand	12,600 00
	$3,105,289 10

*Unused.

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STREET LIGHTING DEPARTMENT.

PROPERTY IN USE.

1,011 mast arms,	$12,339 00	
1,089 lamp poles,	5,956 85	
158 iron poles, with goosenecks, complete,	6,358 58	
Meters,	797 25	
Miscellaneous tools,	95 00	
One horse,	300 00	
4 wagons, 2 sleighs, pole truck, harnesses, blankets, robes, etc.,	287 00	
Storehouse and sheds,	600 00	
One touring car,	300 00	
		$27,033 68

STOCK ON HAND NOT IN USE.

12 goosenecks,	$144 00	
Derrick,	126 00	
Creosote kettle,	144 00	
Mast arms, cable, crossarms, and repair parts,	404 00	
Poles, tops, steps, sockets, pulleys, and ropes,	2,283 97	
Screws, ladders, spreaders, snaps, insulators, gooseneck cut-outs,	152 85	
4,000 charts for recording meters,	19 48	
Coal, hay, and oats,	25 92	
Automobile supplies,	40 00	
Creosote and carbolineum,	51 20	
		3,391 42
		$30,425 10

STREET AND SEWER DEPARTMENTS.

LANDS.

City yard, Logan street,	$8,500 00	
City yard, Summer street,	30,000 00	
Gravel bank, Five Mile pond,	100 00	
Gravel bank, Island pond,	350 00	
Gravel bank, Boston road,	75 00	
Trap rock quarry, Westfield,	250 00	
		$39,275 00

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Amount brought forward,.....		$39,275 00
BUILDINGS AND STRUCTURES.		
Barn, wagon house, and shed,.....	$16,040 00	
Scales, ...	318 00	
Trap rock bins and trestle,.....	9,000 00	
Steam roller house,.....	800 00	
		26,158 00
HORSES, WAGONS, ETC.		
Three automobiles, ...	$2,200 00	
Fifteen horses, ...	2,575 00	
Fifteen wagons and carts,.....	1,435 00	
Ten sleighs, sleds, etc.,.....	405 00	
Harnesses, blankets, etc.,.....	364 67	
Provender, ...	1,404 63	
		8,384 30
SPECIAL TOOLS AND MACHINES.		
Horse rollers, ...	$155 00	
Six steam rollers,.....	8,000 00	
Concrete mixer, ...	900 00	
Hoisting engine, ...	600 00	
Macadam scraper, ...	165 00	
Road machines, ...	100 00	
Scarifier, ...	425 00	
Sewer pumps and portable boiler,.....	260 00	
Street sweepers and cleaning equipment,..	1,755 22	
Six wheel scrapers,.....	110 00	
		12,470 22
STREET AND SEWER MATERIALS.		
Castings and patterns,.....	$549 30	
Coal, oil, tanks, etc.,.....	101 96	
Lumber, ...	1,486 43	
Lumber, contract for North and South End bridges,.....	9,963 59	
Sand and sand tickets,.....	64 00	
Trap rock, ...	1,151 65	
Paving brick and wood blocks,.....	3,336 00	
Vitrified clay pipe,.....	314 66	
		16,967 59
Amount carried forward,.....		$103,255 11

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Amount brought forward,.....		$103,255 11
STREET WATERING EQUIPMENT.		
Twenty-four wagons, ...	$4,395 00	
Two tanks for road oil,.....	1,507 32	
		5,902 32
TOOLS AND SUPPLIES, MISCELLANEOUS.		
Lanterns, globes, etc.,.....	$98 90	
Machine shop stock and tools,.....	1,025 00	
Sidewalk materials and tools,.....	2,660 65	
Miscellaneous materials and tools,.....	3,117 91	
		6,902 46
FURNITURE.		
Office furniture and equipment,.....		616 00
ASHES AND GARBAGE COLLECTIONS.		
LAND AND BUILDINGS.		
State street, land and buildings,.....	$6,000 00	
South End barn,.....	800 00	
		6,800 00
HORSES, WAGONS, ETC.		
Twenty-three horses, ...	$2,700 00	
Two mules, ...	300 00	
Twenty-one wagons, ...	2,280 00	
Seventeen sleighs, ...	1,300 00	
Harnesses, blankets, etc.,.....	470 00	
Provender, ...	931 00	
		7,981 00
TOOLS AND SUPPLIES.		
Fifty-two ash carriers,.....	$52 00	
Fifty-seven garbage pails,.....	88 25	
Twenty wagon covers,.....	48 00	
Small tools, ...	50 00	
		238 25
Total, Street Department,.....		$131,695 14
Sewers and drains,.....		1,485,839 63
		$1,617,534 77

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WATER DEPARTMENT.

Land purchased of C. J. Stebbins,	$693 00	
Land purchased of L. A. Rice,	726 00	
Land purchased of James Kirkham,	3,050 00	
Mains, etc., since original purchase of Springfield Aqueduct Company's property in 1872, cost,	1,240,762 63	
Pumping plant at Chapin pond (emergency use only), cost,	6,381 59	
Pumping plant at Five Mile pond (emergency use only), cost,	15,548 84	
Pumping plant at Loon pond (emergency use only), cost,	3,786 78	
Ludlow main, No. 2,	320,986 83	
Ludlow and Belchertown property, cost to date,	949,811 83	
Ludlow intermittent filter plant, cost to date,	50,723 94	
Little River supply, cost to date,	1,840,334 24	
Real estate at Five Mile pond, cost,	2,611 72	
Office property, Bridge street:—		
Land, $24,700 00		
Brick buildings, 12,000 00		
Frame building, 4,500 00		
	41,200 00	
Land on Wight avenue,	6,121 00	
Stable on Wight avenue, cost to date,	6,973 51	
Team, tools, stock, and fixtures,	105,687 77	
		$4,595,399 68

WATER STREET EXTENSION.

Land and buildings,	$76,361 00

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DEPARTMENT OF PUBLIC PARKS.

Name.	Location.	Acres.	Valuation.
Armory St. Reservoir Park,	Armory street,	7.64	$8,000 00
Armory Street Triangle,	Armory street,	.02	400 00
Belmont Triangle,	Belmont avenue,	.03	600 00
Benton Lawn,	State street,	3.53	30,000 00
Calhoun Square,	Chestnut street,	2.43	35,000 00
Carew Triangle,	North Main street,	.08	12,000 00
Clarendon Fountain,	Clarendon street,	.10	500 00
Concord Terrace,	Concord terrace,	.15	1,000 00
Cottage Hill Grove,	Indian Orchard,	3.34	12,000 00
Court Square and Extension,	Main street,	3.87	1,400,400 00
Crescent Terrace,	Crescent terrace,	.48	2,000 00
Dartmouth Fountain,	Dartmouth st. (end),	.15	1,000 00
Dartmouth Terrace,	Dartmouth st. (end),	.39	1,500 00
Dorchester Rest,	Dorchester st. (end),	.11	1,000 00
Emerson Wight Playground,	Rutledge ave. (end),	6.55	20,000 00
Florentine Gardens,	Spruceland avenue,	.17	1,500 00
Forest Park,	Sumner avenue,	476.10	1,428,000 00
Garfield Triangle,	Garfield street,	.13	1,300 00
Gerrish Park,	Walnut street,	1.10	8,000 00
Grenada Terrace,	Grenada terrace,	3.51	2,000 00
Gunn Square,	Westford avenue,	.80	5,000 00
Kenwood Park,	Belmont avenue,	.39	1,500 00
Kenwood Terrace,	Sumner avenue,	2.12	1,500 00
Kibbe Fountain,	Federal street,	.07	1,200 00
Lafayette Rest,	Lafayette street (end),	.10	1,000 00
Magnolia Terrace,	Magnolia terrace,	.29	4,000 00
Maplewood Terrace,	Maplewood terrace,	.76	3,000 00
Marengo Park,	Marengo park,	.46	3,500 00
Massachusetts Terrace,	Massachusetts avenue,	.36	1,200 00
McKnight Glen,	Ingersoll grove,	2.92	1,500 00
McKnight Triangle,	Bay street,	.62	3,000 00
Merrick Terrace,	State street,	.55	100,000 00
Mill Street Fountain,	Mill street,	.05	800 00
Mill River Rest,	Mill street,	.08	1,000 00
Oak Grove Park,	Oak Grove avenue,	.57	500 00
Public Lawn,	Main street,	.53	10,000 00
Amount carried forward.....			$3,104,900 00

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Name.	Location.	Acres.	Valuation.
Amount brought forward,.....			$3,104,900 00
Sargeant's Rest,	North Main street,	.24	15,000 00
Smith's Triangle,	Maple street,	.09	2,500 00
Stearns Square,	Bridge street,	.46	200,000 00
Sumner Terrace,	Sumner avenue,	.17	1,500 00
Tapley Playground,	Sherman street,	1.07	7,000 00
The Levee,	Elm street (end),	1.11	16,300 00
Thompson Triangle,	St. James avenue,	1.06	5,000 00
Van Horn Reservoir Park,	Armory street,	68.72	18,000 00
Watershops Triangle,	Walnut street,	1.10	800 00
Westford Circle,	Westford avenue,	.35	2,000 00
West Street Triangle,	West street,	.13	400 00
Winchester Square,	State street,	.62	25,000 00

Permanent improvements to November 30, 1911:—		
Buildings, structures, etc.,.....	$88,500 00	
Roads, ponds, etc.,.....	187,500 00	
		276,000 00
		$3,674,400 00

RECAPITULATION.

Birnie Avenue Extension,.....	$8,950 00	
Board of Health,.....	42,671 00	
Engineering Department, ...	2,832 00	
Fire Department, ...	658,552 00	
Forestry Department, ...	20,674 38	
Miscellaneous, ...	175,179 00	
Municipal Building, ...	15,748 51	
North Street Extension,.....	185,914 00	
Pauper Department, ...	146,229 05	
Police Department, ...	167,801 70	
School Department, ...	3,105,289 10	
Street Lighting Department,.....	30,425 10	
Street and Sewer Departments,.....	1,617,534 77	
Water Department, ...	4,595,399 68	
Water Street Extension,.....	76,361 00	
		$10,849,561 29
Land, etc., in charge of Park Commission,		$3,674,400 00

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Respectfully submitted,

H. G. WATERS,
HENRY LASKER,
M. H. FARRELL,
G. MARSTON LEONARD,

Committee on City Property.

BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved for printing.

EDWARD H. LATHROP, *Mayor.*

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CITY AUDITOR.

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CITY AUDITOR'S REPORT.

SPRINGFIELD, MASS., December 10, 1911.

To His Honor, the Mayor, and the City Council:—

The Auditor of Accounts respectfully submits the following report:—

During the fiscal year ending November 30, 1911, this department has audited all bills and pay rolls presented for payment, and made quarterly examinations of the accounts of the City Treasurer and the accounts of the Water Commissioners, and has also made semi-annual examinations, as further required by ordinance, of the accounts of the City Collector and City Clerk, all of which have been found correct and to agree with the records of this office.

This department has also examined the accounts of the Commissioners of the Sinking Funds and finds they agree with the records of the office of the Treasurer.

Statements of the accounts referred to are herewith submitted.

WILLIAM C. MARSH,
Auditor of Accounts.

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CITY CLERK IN ACCOUNT WITH THE CITY OF SPRINGFIELD.

		Dr.	Cr.
December,	1910, for the month, ...	$138 10	
January,	1911, " " "	124 90	
February,	" " " "	130 35	
March,	" " " "	137 18	
April,	" " " "	253 60	
May,	" " " "	242 10	
June,	" " " "	295 15	
July,	" " " "	219 40	
August,	" " " "	189 20	
September,	" " " "	194 90	
October,	" " " "	174 20	
November,	" " " "	142 20	
June 15,	" by payment to City Treasurer,		$1,026 23
November 29,	" " " " " "		1,215 05
		$2,241 28	$2,241 28
Express Licenses,		178 00	
June 15,	" by payment to City Treasurer,		93 00
November 29,	" " " " " "		85 00
		$2,419 28	$2,419 28

I hereby certify that the above statement is correct.

WILLIAM C. MARSH,

Auditor of Accounts.

SPRINGFIELD, MASS., December 10, 1911.

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CITY COLLECTOR IN ACCOUNT WITH THE CITY OF SPRINGFIELD.

1910.	Dr.	Cr.
December, fees collected,	$829 03	
1911.		
January, " "	609 24	
February, " "	241 10	
March, " "	413 05	
April, " "	107 80	
May, " "	120 60	
June, " "	93 60	
July, " "	76 80	
August, " "	52 90	
September, " "	18 00	
October, " "	41 20	
November, " "	40 50	
By payments to City Treasurer,		
1911.		
March 15,		$700 00
June 15,		1,664 92
November 29,		278 90
	$2,643 82	$2,643 82

I hereby certify that the above statement is correct.

WILLIAM C. MARSH,

Auditor of Accounts.

SPRINGFIELD, MASS., December 10, 1911.

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CITY TREASURER IN ACCOUNT WITH THE CITY OF SPRINGFIELD. •

1910–1911.		Receipts.	Payments.	Cash Balance.
Nov. 30, 1910	Cash balance on hand.....			$1,552,433 21
Dec. 15, 1910	Month ending.....	$32,123 15	$270,263 66	
Jan. 15, 1911	" "	68,672 15	297,274 81	
Feb. 15.	" "	121,581 03	210,684 72	
Mar. 15.....	" "	52,978 63	207,740 99	
April 15.....	" "	68,493 81	241,318 58	
May 15.....	" "	298,385 95	270,407 77	
June 15.....	" "	59,521 40	324,560 29	
July 15.....	" "	37,267 84	358,577 02	
Aug. 15.....	" "	415,772 73	298,821 57	
Sept. 15.....	" "	130,198 95	217,716 36	
Oct. 15.....	" "	669,528 75	328,200 42	
Nov. 29.....	" "	2,023,737 09	1,367,830 00	
		$3,968,251 48	$4,393,366 19	$1,127,369 20

I hereby certify that the above statement is correct.

WILLIAM C. MARSH, *Auditor of Accounts.*

SPRINGFIELD, MASS., December 10, 1911.

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	Debit.			Credit.			
	Balance November 30, 1910.	Committed During the Year.	Total.	Payments to City Treasurer.	Abatements and Corrections.	Total.	Unpaid Balance Nov. 30, 1911.
Ash Dept	$304 00	$169 05	$373 05	$373 05	.....	$373 05	.....
Board of Health	.....	106 60	106 60	.....	$106 60	106 60	.....
City Engineer	193 46	2,375 75	2,569 21	2,569 21	.....	2,569 21	.....
Contingencies	.....	40 38	40 38	40 38	.....	40 38	.....
Court Square Extension	.....	1,050 55	1,050 55	1,050 55	.....	1,050 55	.....
Evening Trades School	.....	1,198 50	1,198 50	1,198 50	.....	1,198 50	.....
Fire Dept	.....	710 00	710 00	638 00	72 00	710 00	.....
Fire and Police Headquarters	.....	41 62	41 62	41 62	.....	41 62	.....
Forestry Dept	101 05	1,046 93	1,147 98	873 68	62 20	935 88	$212 10
Garbage Collection	35 00	4,530 19	4,565 19	4,033 99	117 30	4,151 29	413 90
High School Lunch Fund	.....	70	70	70	.....	70	.....
Highways and Bridges	4,106 13	41,797 49	45,903 62	35,021 54	62 19	35,083 73	10,819 89
Isolation Hospital	2,898 38	6,360 19	9,258 57	3,936 47	1,944 61	5,881 08	3,377 49
Law Dept	.....	266 64	266 64	266 64	.....	266 64	.....
Lighting Streets	.....	802 41	802 41	648 51	99 96	748 47	53 94
Little River Water Supply	.....	2 82	2 82	2 82	.....	2 82	.....
Pauper Dept	2,689 81	16,144 01	18,833 82	13,932 95	429 41	14,362 36	4,471 46
Police Dept	26 79	728 43	755 22	592 60	31 75	624 35	130 87
Public Parks	.....	418 99	418 99	418 99	.....	418 99	.....
School Dept	80 00	6,356 55	6,436 55	5,034 55	370 00	5,404 55	1,032 00
Schoolhouse Repairs	.....	79 85	79 85	79 85	.....	79 85	.....
Schools, City Property	200 00	44 53	244 53	79 53	160 00	239 53	5 00
Sewers and Drains	590 59	19,919 20	20,509 79	19,945 76	164 51	20,110 27	399 52
Soldiers' Relief	.....	185 07	185 07	185 07	.....	185 07	.....
Technical High School	120 00	6,106 00	6,226 00	5,063 50	282 50	5,346 00	880 00
" " " Commercial	120 00	2,533 50	2,653 50	2,513 50	20 00	2,533 50	120 00
Treasury Dept	.....	378 55	378 55	378 55	.....	378 55	.....
Walks and Curbing	2,660 52	19,037 22	21,697 74	15,894 87	1,091 93	16,986 80	4,710 94
Watering Street Tax, 1909	552 25	.....	552 25	532 71	19 54	552 25	.....
" " " 1910	6,046 97	.....	6,046 97	5,437 04	.....	5,437 04	609 93
" " " 1911	.....	29,682 99	29,682 99	22,988 26	.....	22,988 26	6,694 73
Water Dept	3,926 94	401,600 57	405,527 51	398,053 10	4,282 20	402,335 30	3,192 21
Watering Streets, 1910	14 00	2,481 42	2,495 42	2,485 68	.....	2,485 68	9 74
Vocational Schools	.....	112 00	112 00	112 00	.....	112 00	.....
Taxes, 1907	10 25	.....	10 25	10 25	.....	10 25	.....
" 1908	10 97	.....	10 97	10 97	.....	10 97	.....
" 1909	29,123 11	.....	29,123 11	28,677 24	445 87	29,123 11	.....
" 1910	351,540 45	6,426 65	357,967 10	314,230 91	18,356 69	332,587 60	25,379 50
" 1911	.....	2,211,326 77	2,211,326 77	1,808,435 49	7,047 61	1,815,483 10	395,843 67
	$405,250 67	$2,784,062 12	$3,189,312 79	$2,695,789 03	$35,166 87	$2,730,955 90	$458,356 89

I hereby certify that the above statement is correct.

SPRINGFIELD, MASS., December 10, 1911. WILLIAM C. MARSH, *Auditor of Accounts.*

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COMMISSIONERS OF THE SINKING FUNDS IN ACCOUNT WITH THE CITY OF SPRINGFIELD.

For Account of Sinking Funds During the Fiscal Year Ending November 30, 1911.

SINKING FUNDS FOR:	Balances November 21, 1910.	Appropriations, etc., During the Year.	Net Earnings Collected During Year.	Balance November 20, 1911.
High school, new building	$234,120 88	$13,200 00	$8,941 03	$256,261 86
Public Park loan	45,698 11	5,000 00	2,024 14	52,722 25
School loan, 1900	66,750 54	5,700 00	2,452 65	74,903 19
School loan, 1901	51,965 63	5,000 00	2,142 57	59,108 20
School loan, 1902	19,321 65	2,200 00	717 79	22,239 44
School loan, 1903	13,037 60	1,700 00	589 75	15,327 35
School loan, 1905	96,336 15	15,500 00	3,738 93	115,577 08
School loan, 1906	31,939 61	7,500 00	1,203 88	40,643 49
Schoolhouse, Ward 6	27,733 08	1,400 00	1,045 40	30,178 48
Sewer loan, 1900	39,242 69	3,300 00	1,415 42	43,958 11
Water Works	181,228 63	19,278 41	8,024 07	208,531 11
Street, School and Sewer loan, 1907	35,615 38	11,500 00	1,501 39	48,616 77
	$842,991 90	$91,278 41	$33,797 02	$968,067 33

I hereby certify that the above statement is correct.

WILLIAM C. MARSH, *Auditor of Accounts.*

SPRINGFIELD, MASS., December 10, 1911.

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WATER WORKS IN ACCOUNT WITH THE CITY OF SPRINGFIELD.

For receipts and payments by City Treasurer, as follows:—

1910.		Dr. Amount Paid.	Cr. Collections.
Dec. 15.....	Month ending.....	$22,722 64	$2,450 00
1911			
Jan. 15.....	" "	13,577 21	4,400 00
Feb. 15.....	" "	28,581 60	51,750 00
Mar. 15.....	" "	38,506 50	13,725 00
April 15.....	" "	22,973 15	3,050 00
May 15.....	" "	39,141 05	92,200 00
June 15..	" "	24,794 83	14,297 83
July 15.....	" "	22,846 20	1,824 24
Aug. 15.....	" "	17,988 13	74,750 00
Sept. 15.....	" "	15,642 21	9,600 00
Oct. 15.....	" "	13,230 19	7,950 00
Nov. 29.....	" "	17,965 67	123,080 27
Nov. 29.....	Funded debt.....	20,000 00	
		$297,919 38	
	Interest	90,205 00	
	Sinking fund.....	9,982 96	
		$398,077 34	$398,077 34

I hereby certify that the above statement is correct.

WILLIAM C. MARSH, *Auditor of Accounts.*

SPRINGFIELD, MASS., December 10, 1911.

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SEALER OF WEIGHTS AND MEASURES IN ACCOUNT WITH THE CITY OF SPRINGFIELD.

Fees collected and paid to the City Treasurer as follows:—

June 15, 1911,	$138 82
July 15, 1911,	173 09
Aug. 15, 1911,	61 13
Sept. 15, 1911,	149 84
Oct. 15, 1911,	59 51
Nov. 15, 1911,	108 87
	$691 26

I hereby certify that the above statement is correct.

WILLIAM C. MARSH,

Auditor of Accounts.

SPRINGFIELD, MASS., December 10, 1911.

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BOARD OF ALDERMEN, December 18, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 18, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 18, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, Mass., December 19, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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SINKING FUNDS.

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REPORT OF THE

Commissioners of the Sinking Fund.

SPRINGFIELD, MASS., November 20, 1911.

To His Honor, the Mayor, and City Council.

GENTLEMEN:—The Commissioners of the Sinking Funds of the City of Springfield have the honor to report the condition of the sinking funds, established to meet indebtedness of the city, and the income accruing to the same for the year ending November 16, 1911, as follows:—

WATER WORKS.

$200,000, 4% bonds, April 1, 1913. $275,000, 3½% and 4% bonds, 1920 and 1923.

RECEIPTS.

Amount on hand at last report, ...		$181,228 63	
Surplus balance from Water Department for 1910, received December 10, 1910, .		19,278 41	
Interest on investments, ...		8,001 90	
Addition of difference between price paid and par value of bonds bought during the year, ...		220 00	
		$208,728 94	
Premium paid for bonds—charged off,	$18 55		
Accrued interest paid on bonds—charged off, ...	179 28		
		197 83	
			$208,531 11

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INVESTMENTS.

City of Springfield bonds,	$104,000 00	
Other Municipal bonds,	29,000 00	
Railroad bonds,	52,000 00	
Street Railway bonds,	20,000 00	
Cash in bank at interest,	3,531 11	
		$208,531 11

SCHOOLHOUSE, WARD SIX.

Loan $35,000, 4% bonds, October 1, 1895, 20 years.

RECEIPTS.

Amount on hand at last report,		$27,733 08	
Appropriation of City Council, received November 10, 1911,		1,400 00	
Interest on investments,		1,112 40	
Addition of difference between price paid and par value of bonds bought during the year,		2 50	
		$30,247 98	
Premium paid for bonds—charged off,	$37 00		
Accrued interest paid on bonds —charged off,	32 50		
		69 50	
			$30,178 48

INVESTMENTS.

City of Springfield bonds,	$12,000 00	
Municipal bonds,	7,950 00	
Railroad bonds,	3,000 00	
Street Railway bonds,	5,000 00	
Cash in bank at interest,	2,228 48	
		$30,178 48

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HIGH SCHOOL LOAN.

Loan $370,000, 4% bonds, January 1, 1897, 20 years.

RECEIPTS.

Amount on hand at last report,		$234,120 83	
Appropriation of City Council received November 10, 1911,		13,200 00	
Interest on investments,		9,251 29	
Addition of difference between price paid and par value of bonds bought during the year,		120 10	
		$256,692 22	
Premium paid for bonds—charged off,	$67 50		
Accrued interest paid on bonds—charged off,	362 86		
		430 36	
			$256,261 86

INVESTMENTS.

City of Springfield bonds,	$112,000 00	
Bonds, Municipal and Town,	49,050 00	
Street Railway bonds,	21,000 00	
Railroad bonds,	59,000 00	
Cash in bank at interest,	15,211 86	
		$256,261 86

SCHOOL LOAN, 1900.

Loan $145,000, 3% and 3½% bonds, December 1, 1899, and June 1, 1900, 20 years.

RECEIPTS.

Amount on hand at last report,	$66,750 54
Appropriation of City Council received November 10, 1911,	5,700 00
Interest on investments,	2,514 10
Addition of difference between price paid and par value of bonds bought during the year,	25 10
	$74,989 74

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Amount brought forward,		$74,989 74	
Premium paid for bonds—charged off,	$10 00		
Accrued interest paid on bonds—charged off,	76 55		
		86 55	
			$74,903 19

INVESTMENTS.

City of Springfield bonds,	$38,500 00	
Municipal bonds,	6,250 00	
Railroad bonds,	22,000 00	
Street Railway bonds,	500 00	
Cash in bank at interest,	7,653 19	
		$74,903 19

SEWER LOAN, 1900.

Loan $142,000, 3% bonds, June 1, 1900, 30 years.

RECEIPTS.

Amount on hand at last report,		$39,242 69	
Appropriation of City Council received November 10, 1911,		3,300 00	
Interest on investments,		1,500 00	
		$44,042 69	
Premium paid for bonds—charged off,	$70 80		
Accrued interest paid on bonds—charged off,	13 78		
		84 58	
			$43,958 11

INVESTMENTS.

City of Springfield bonds,	$21,000 00	
Municipal bonds,	8,000 00	
Railroad bonds,	5,000 00	
Street Railway bonds,	5,300 00	
Cash in bank at interest,	4,658 11	
		$43,958 11

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SCHOOL LOAN, 1901.

Loan $125,000, 3½% bonds, September 1, 1901, 20 years.

RECEIPTS.

Amount on hand at last report,		$51,965 63	
Appropriation of City Council received November 10, 1911,		5,000 00	
Interest on investments,		2,152 16	
		$59,117 79	
Premium paid for bonds—charged off,	$5 70		
Accrued interest paid on bonds—charged off,	3 89		
		9 59	
			$59,108 20

INVESTMENTS.

City of Springfield bonds,	$22,000 00	
Bonds, Municipal and Town,	4,000 00	
Railroad bonds,	11,000 00	
Mortgage note,	12,000 00	
Cash in bank at interest,	10,108 20	
		$59,108 20

SCHOOL LOAN, 1902.

Loan $55,000, 3½% bonds, October 1, 1902, 20 years.

RECEIPTS.

Amount on hand at last report,		$19,321 65	
Appropriation of City Council received November 10, 1911,		2,200 00	
Interest on investments,		779 46	
		$22,301 11	
Accrued interest paid on bonds—charged off,		61 67	
			$22,239 44

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INVESTMENTS.

City of Springfield bonds,	$6,500 00	
Municipal bonds,	7,000 00	
Railroad bonds,	5,000 00	
Street Railway bonds,	500 00	
Cash in bank at interest,	3,239 44	
		$22,239 44

PUBLIC PARK LOAN, 1903.

Court Square Extension.

Loan $125,000, 3½% bonds, June 1, 1903, 20 years.

RECEIPTS.

Amount on hand at last report,	$45,698 11	
Appropriation of City Council received November 10, 1911,	5,000 00	
Interest on investments,	1,754 47	
Addition of difference between price paid and par value of bonds bought during the year,	326 25	
	$52,778 83	
Accrued interest paid on bonds—charged off,	56 58	
		$52,722 25

INVESTMENTS.

City of Springfield bonds,	$27,000 00	
Street Railway bonds,	6,700 00	
Railroad bonds,	12,000 00	
Cash in banks at interest,	7,022 25	
		$52,722 25

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SCHOOL LOAN, 1903.

Loan $40,000, 3½% bonds, September 1, 1903, 20 years.

RECEIPTS.

Amount on hand at last report,	$13,037 60	
Appropriation of City Council received November 10, 1911,	1,700 00	
Interest on investments,	462 97	
Addition of difference between price paid and par value of bonds purchased during the year,	140 00	
	$15,340 57	
Accrued interest paid on bonds—charged off,	13 22	
		$15,327 35

INVESTMENTS.

City of Springfield bonds,	$7,500 00	
Municipal bonds,	1,000 00	
Railroad bonds,	4,000 00	
Cash in bank at interest,	2,827 35	
		$15,327 35

SCHOOL LOAN, 1905.

Technical High School and White Street Grammar School.

Loan $396,000, 3½% bonds, January 1, 1905, 20 years.

RECEIPTS.

Amount on hand at last report,		$96,338 15	
Appropriation of City Council received November 10, 1911,		15,500 00	
Interest on investments,		3,784 75	
Addition of difference between price paid and par value of bonds bought during the year,		226 80	
		$115,849 70	
Premium paid for bonds—charged off,	$46 40		
Accrued interest paid on bonds—charged off,	226 22		
		272 62	
			$115,577 08

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INVESTMENTS.

City of Springfield bonds,	$62,000 00	
Railroad bonds,	19,000 00	
Municipal bonds,	18,000 00	
Cash in bank at interest,	16,577 08	
		$115,577 08

SCHOOL LOAN, 1906.

Loan $207,000, 4% bonds, November 1, 1906, 20 years.

RECEIPTS.

Amount on hand at last report,		$31,939 61	
Appropriation of City Council received November 10, 1911,		7,500 00	
Interest on investments,		1,175 03	
Addition of difference between price paid and par value of bonds purchased during the year,		140 00	
		$40,754 64	
Premium paid for bonds—charged off,	$52 60		
Accrued interest paid on bonds—charged off,	58 55		
		111 15	
			$40,643 49

INVESTMENTS.

City of Springfield bonds,	$22,000 00	
Railroad bonds,	10,000 00	
Cash in bank at interest,	8,643 49	
		$40,643 49

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STREET, SCHOOL AND SEWER LOAN, 1907.

Loan $125,000, 4% bonds, November 1, 1907, 10 years.

RECEIPTS.

Amount on hand at last report,		$35,615 38	
Appropriation of City Council received November 10, 1911,		11,500 00	
Interest on investments,		1,510 98	
		$48,626 36	
Premium paid for bonds—charged off,	$5 70		
Accrued interest paid on bonds—charged off,	3 89		
		9 59	
			$48,616 77

INVESTMENTS.

City of Springfield bonds,	$12,000 00	
Municipal bonds,	1,000 00	
Railroad bonds,	11,000 00	
Mortgage note,	12,000 00	
Cash in bank at interest,	12,616 77	
		$48,616 77

RECAPITULATION.

Surplus balance from Water Department, received December 10, 1910,	$19,278 41
Appropriations of City Council received November 10, 1911,	72,000 00
Interest on investments,	33,999 51
Addition of difference between price paid and par value of bonds bought during the year,	1,200 75
Total revenue,	$126,478 67
Amount on hand at last report,	842,991 90
	$969,470 57

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Amount brought forward, ...		$969,470 57	
All premiums paid for bonds bought during the year—charged off,	$314 25		
Accrued interest paid on all bonds bought during the year — charged off, ...	$1,088 99		
		1,403 24	
			$968,067 33

INVESTED AS FOLLOWS:

City of Springfield bonds, ...	$446,500 00
Bonds and notes, Municipal, ...	131,250 00
Railroad bonds, ...	213,000 00
Street Railway bonds, ...	59,000 00
Mortgage notes, ...	24,000 00
Cash in banks at interest, ...	94,317 33
	$968,067 33

Respectfully submitted,

ROBERT O. MORRIS,
A. WILLARD DAMON,
A. B. WALLACE,

Commissioners.

ELIPHALET T. TIFFT,

Treasurer.

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BOARD OF ALDERMEN, November 20, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, November 20, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor, for approval, November 21, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., November 21, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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CITY TREASURER'S REPORT.

NOVEMBER 30, 1911.

With Certificate of City Auditor Attached.

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CITY TREASURER'S REPORT.

CITY OF SPRINGFIELD,

CITY TREASURER'S OFFICE, December 28, 1911.

To His Honor, the Mayor, and the City Council:—

I have the honor to submit herewith the annual report of the City Treasurer, showing the operation and condition of the City Treasury and of the Sinking Funds; and presenting other information relative to finances of the City of Springfield for the fiscal year ending November 30, 1911.

RECEIPTS.

The amounts received from various sources and credited sundry accounts are as follows:—

Cash on hand November 30, 1910,.....		$1,552,483 91
Temporary loans, ...	$450,000 00	
From City Collector:—		
Taxes of 1907,.....	10 25	
Taxes of 1908,.....	10 97	
Taxes of 1909,.....	28,677 24	
Taxes of 1910,.....	314,230 91	
Taxes of 1911,.....	1,794,993 61	
Street watering taxes of 1909,....	532 71	
Street watering taxes of 1910,....	5,437 04	
Street watering taxes of 1911,....	22,988 26	
Excise tax, Springfield Street Railway Company, 1911,.....	13,441 88	
From State Treasurer:—		
Corporation tax, Springfield Street Railway Company, ...	28,803 60	
National bank tax,.....	5,296 80	
State aid, ...	14,067 00	
Amounts carried forward,.....	$2,678,490 27	$1,552,483 91

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Amounts brought forward,.....		$2,678,490 27	$1,552,483 91
Military aid, ...		65 00	
Soldiers' and sailors' burials,....		777 00	
Ashes collection, filling, etc.,.....		433 05	
Auditing department, rebate on adding machine, ...		107 80	
Board of Health, milk licenses, etc.,....		300 92	
Contingencies:—			
State Treasurer, balance of corporation tax, 1910,.....	$6,637 24		
State Treasurer, on account of corporation tax, 1911,..	141,356 03		
Liquor licenses, ...	148,635 00		
Sundry other licenses and fees,..	5,082 97		
Fire and police building loan bond,	15,000 00		
Municipal building loan bonds,.....	10,000 00		
Jacob Ginsberg, land on N. E. corner York street and Pecousic avenue,	3,100 00		
Jacob Ginsberg, land corner Deane and Pecousic avenues,	925 00		
Sarah Clark, land on N. W. corner York street and Pecousic avenue,	96 00		
Sundry other receipts, ...	270 66		
		331,102 90	
City Clerk's department, official fees,...		2,241 28	
City Engineering department, services of engineers,.....		2,569 21	
Amounts carried forward,.....		$3,016,087 43	$1,552,483 91

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Amounts brought forward,		$3,016,087 43	$1,552,483 91
City Library Association, County Treasurer, dog fund of 1910,		4,448 28	
Central street school, additional land, rent,		610 00	
Collector's department, official fees,		2,643 82	
Court Square extension, interest,		1,050 55	
Evening Trade school, tuition and sales,		1,230 50	
Fire department, sale of horses, junk, etc.,		2,877 57	
Fire and police headquarters, sale of old fire and police buildings, etc.,		3,741 37	
Fire station, North street, rent,		233 50	
Fire department, Pine street addition, sale of house, etc.,		1,782 55	
Forestry, services,		873 68	
Forestry buildings,		62 40	
Funded Debt:—			
"Public Buildings Loan 1911," 4 per cent. serial bonds,	$320,000 00		
"Locust Street Extension Loan," 4 per cent. serial bonds,	20,000 00		
		340,000 00	
Premium on city bonds, premium on above loans,		14,114 00	
Garbage collection, garbage sold, etc.,		4,033 99	
Highways and bridges, labor and material,		38,160 37	
High schools, lunch fund, lunches,		10,516 17	
Interest on taxes, bank balances, etc.,		31,626 87	
Isolation hospital, board and treatment,		3,945 44	
Law department, transfer from Police department,		266 64	
Lighting streets, sales,		660 11	
Amounts carried forward,		$3,478,965 24	$1,552,483 91

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Amounts brought forward,	$3,478,965 24	$1,552,483 91
Little River water supply, supplies,	190 10	
Lincoln school, rugs returned,	32 00	
Militia rifle range, hay,	5 00	
North street extension, sale of land and rent,	7,606 00	
Pauper department, support of poor, etc.,	14,163 82	
Police and watch, fines, fees, etc.,	12,017 10	
Public parks, rent and sundry sales,	1,744 79	
Playgrounds, rent of bathrooms and suits,	341 54	
Printing and stationery,	8 85	
Premium on city bonds (Chap. 379, Acts of 1910), interest,	1,000 00	
Schools, tuition, etc.,	5,628 83	
Schoolhouse repairs, sales,	109 21	
Schools, City Property Committee, high school hall rentals, etc.,	542 75	
Schoolhouse, Sumner avenue, rents,	176 00	
Sewers and drains, sewer entrance fees, material and labor,	19,977 39	
Sealers of weights and measures, fees,	691 26	
School buildings, fireproofing,	3 47	
Soldiers' relief, aid rendered,	233 07	
Technical high school, tuition, etc.,	5,235 87	
Technical high school, commercial, tuition, etc.,	2,538 50	
Treasury department,	378 55	
Vocational schools, tuition and sales,	205 25	
Walks and curbing, assessments,	15,893 87	
Watering streets, watering street railway tracks, etc.,	2,485 68	
Water works, sales of water, labor, material, etc.,	398,077 34	
Total receipts,		3,968,251 48
		$5,520,735 39

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PAYMENTS.

The amounts disbursed and charged to sundry accounts are as follows:—

Funded debt,	$134,200 00
Temporary loans,	450,000 00
State Treasurer:—	
State tax, 1911,	158,345 00
National bank tax, 1911,	33,254 32
County Treasurer:—	
County tax, 1911,	107,858 85
State aid,	13,214 00
Military aid,	70 00
Soldiers' and sailors' burials,	888 00
Commissioners of the sinking funds,	91,278 41
Abatement of taxes,	200 26
Assessors' department,	14,908 64
Ashes collection,	48,144 65
Auditing department,	4,207 75
Birnie avenue extension,	8,950 00
Board of Health,	12,069 15
Building commissioners,	10,457 42
Central heating plant,	61,284 52
Central street school, additional land,	101 42
Charter revision,	222 60
City Clerk's department,	8,888 84
City Engineering department,	13,249 96
City Library Association,	54,448 28
City wires underground,	2,991 30
Collector's department,	10,545 74
Contingencies,	49,114 89
Cooking school,	4,318 65
Court Square extension,	774 09
Drinking fountains,	670 16
Election expenses,	8,967 49
Evening Trade school,	4,535 40
Fire department,	247,352 79
Fire department, Pine street addition,	27,760 79
Amount carried forward,	$1,583,273 37

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Amount brought forward,	$1,583,273 37
Fire alarm system,	30,000 00
Fire station, Margaret street,	4,840 52
Fire station, North street,	51 00
Fire and police headquarters,	177,524 05
Fire apparatus, motor,	11,927 78
Forestry,	18,957 90
Forestry buildings,	7,653 32
Forest Park addition,	100 00
Forest Park menagerie building,	27,164 44
Garbage collection,	21,378 94
Gerrish Park,	5 37
Highways and bridges,	281,350 31
High schools, lunch fund,	10,092 51
Inspection of wires,	1,429 36
Interest,	245,526 55
Isolation hospital,	14,696 77
Isolation hospital addition,	8,841 26
Kensington school,	193 52
Kindergarten,	21,442 84
Law department,	4,532 36
Lighting streets,	104,246 23
Little River water supply,	78,383 21
Lincoln school,	594 75
Locust street layout,	17,091 50
Mayor's department,	5,308 36
Medical inspection of schools,	3,197 21
Militia rifle range,	891 83
Municipal building expenses,	4,639 67
Municipal group,	319,474 94
Municipal heating and lighting plant,	2,284 24
North street extension,	7,788 85
Pauper department,	52,749 46
Pecousic avenue, relocation and improvements,	919 65
Playgrounds,	8,104 11
Police and watch,	154,829 58
Police signal equipment,	3,383 70
Amount carried forward,	$3,234,869 46

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Amount brought forward,.....	$3,234,869 46	
Premium on city bonds (Chapter 379, Acts of 1910),.....	26,104 71	
Printing and stationery,.....	3,948 75	
Public parks, ...	50,723 38	
Paving Court street,.....	7,000 49	
River front, ...	2,146 40	
Schools, ...	399,191 39	
Schools, City Property Committee,.....	79,654 92	
Schoolhouse repairs, ...	23,458 83	
Schoolhouse, Sumner avenue,.....	49,157 34	
School buildings, fireproofing,.....	9,095 73	
Sealer of weights and measures,.....	2,156 90	
Sewers and drains,.....	53,537 23	
Soldiers' relief, ...	4,417 04	
Technical high school,.....	56,534 25	
Technical high school, commercial,.....	21,438 03	
Treasury department, ...	9,811 35	
Vocational school, ...	12,231 49	
Walks and curbing,.....	30,536 06	
Watering streets, ...	39,433 06	
Water works, ...	277,919 38	
Total payments, ...		$4,393,366 19
Cash on hand November 30, 1911,.....		1,127,369 20
		$5,520,735 39

The following table shows the appropriations, receipts, transfers, payments, and balances for the current year. Of the total appropriations, $1,842,000 was raised by taxation. The balance, $197,381, was taken from the contingent account by order of the City Council, and is included in the transfers from that department.

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DEPARTMENTS.	Appropriations.	Receipts.	Appropriations and Receipts.	Transfers by order of the City Council.	Appropriations and Receipts plus or minus Transfers.	Expenditures.	Surplus Balances.
Abatement of Taxes		$56,375 21	$56,375 21	.....	$56,375 21	$26,069 97	$30,305 24
Assessors' Department	$13,900 00	.....	13,900 00	$1,050 00	14,950 00	14,908 64	41 36
Auditing Department	3,800 00	107 80	3,907 80	300 00	4,207 80	4,207 75	05
Board of Health	12,300 00	300 92	12,600 92	.....	12,600 92	12,069 15	531 77
Building Commissioners	10,600 00	.....	10,600 00	.....	10,600 00	10,457 42	142 58
City Clerk's Department	7,060 00	2,241 28	9,301 28	.....	9,301 28	8,888 84	412 44
City Library Association	50,000 00	4,448 28	54,448 28	.....	54,448 28	54,448 28	.....
City Wires Underground	3,000 00	.....	3,000 00	.....	3,000 00	2,991 30	8 70
Collector's Department	8,355 00	2,643 82	10,998 82	.....	10,998 82	10,545 74	453 08
Contingencies	.....	435,848 55	435,848 55	13,740 00	422,108 55	285,271 38	136,837 17
Drinking Fountains	900 00	.....	900 00	.....	900 00	900 00	.....
Election Expenses	7,650 00	.....	7,650 00	1,700 00	9,350 00	8,967 49	382 51
City Engineering Department	10,721 00	2,569 21	13,290 21	.....	13,290 21	13,249 96	40 25
Fire Department	243,500 00	2,877 57	246,377 57	2,282 55	248,660 12	247,352 79	1,307 33
Forestry	18,100 00	873 68	18,973 68	.....	18,973 68	18,967 90	15 78
Funded Debt	89,200 00	.....	89,200 00	.....	89,200 00	89,200 00	.....
Highways and Bridges	214,500 00	38,460 37	252,960 37	42,615 25	295,575 62	282,883 31	12,692 31
Highways and Bridges, Ashes Collection	49,300 00	433 05	49,733 05	.....	49,733 05	48,144 65	1,588 40
Highways and Bridges, Garbage Collection	18,500 00	4,033 99	22,533 99	.....	22,533 99	21,678 94	855 05
Highways and Bridges, Walks and Curbing	15,000 00	15,893 87	30,893 87	1,500 00	32,393 87	30,536 06	1,857 81
Highways and Bridges, Watering Streets	8,400 00	32,168 67	40,568 67	.....	40,568 67	39,433 06	1,135 61
Inspection of Wires	1,550 00	.....	1,550 00	.....	1,550 00	1,429 36	120 64
Interest	145,000 00	31,626 87	176,626 87	74,989 00	251,615 87	245,526 55	6,089 32
Isolation Hospital	9,600 00	3,945 44	13,545 44	2,000 00	15,545 44	14,696 77	848 67
Law Department	4,800 00	266 64	5,066 64	.....	5,066 64	4,532 36	534 28
Lighting Streets	104,000 00	660 11	104,660 11	.....	104,660 11	104,246 23	413 88
Mayor's Department	5,600 00	.....	5,600 00	.....	5,600 00	5,308 36	291 64
Medical Inspection of Schools	3,345 00	.....	3,345 00	.....	3,345 00	3,197 21	147 79
Militia Rifle Range	650 00	15 86	665 86	250 00	915 86	891 83	24 03
Municipal Building Expenses	4,500 00	.....	4,500 00	140 00	4,640 00	4,639 67	33
Pauper Department	40,000 00	14,163 82	54,163 82	.....	54,163 82	52,749 46	1,414 36
Playgrounds	7,300 00	341 54	7,641 54	1,000 00	8,641 54	8,104 11	537 43
Police and Watch	143,000 00	12,017 10	155,017 10	500 00	155,517 10	154,829 58	687 52
Printing and Stationery	4,000 00	8 85	4,008 85	.....	4,008 85	3,993 25	15 60
Public Parks	49,000 00	3,390 99	52,390 99	.....	52,390 99	50,723 38	1,667 61
Schools	394,108 00	5,628 83	399,736 83	150 00	399,586 83	399,191 39	395 44
Schools, City Property Committee	80,300 00	542 75	80,842 75	850 01	81,692 76	79,654 92	2,037 84
Schools, Cooking	4,500 00	.....	4,500 00	.....	4,500 00	4,318 65	181 35
Schools, Evening Trade	3,308 00	1,230 50	4,538 50	1,000 00	5,538 50	5,535 40	3 10
Schools, Kindergarten	21,300 00	.....	21,300 00	150 00	21,450 00	21,442 84	7 16
Schools, Technical High	51,624 00	5,235 87	56,859 87	.....	56,859 87	56,534 25	325 62
Schools, Technical High, Commercial	19,020 00	2,538 50	21,558 50	.....	21,558 50	21,438 03	120 47
Schools, Vocational	10,540 00	205 25	10,745 25	1,500 00	12,245 25	12,231 49	13 76
Schoolhouse Repairs	25,350 00	109 21	25,459 21	.....	25,459 21	23,458 83	2,000 38
Sealer of Weights and Measures	1,500 00	691 26	2,191 26	.....	2,191 26	2,156 90	34 36
Sewers and Drains	35,000 00	19,977 39	54,977 39	.....	54,977 39	53,537 23	1,440 16
Sinking Funds	72,000 00	.....	72,000 00	.....	72,000 00	72,000 00	.....
Soldiers' Relief	4,000 00	233 07	4,233 07	200 00	4,433 07	4,417 04	16 03
Treasury Department	9,700 00	378 55	10,078 55	.....	10,078 55	9,811 35	267 20
Water Works	.....	308,077 34	308,077 34	110,205 00	287,872 34	277,910 38	9,962 00
	$2,039,481 00	$1,100,562 01	$3,140,043 01	$256,121 81	$3,147,874 82	$2,920,678 43	$227,196 39

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STATEMENT OF THE FUNDED DEBT AND SINKING FUNDS.

LOANS. NAME AND DESCRIPTION.	Date of Issue.	INTEREST. Rate per Cent	INTEREST. Payable.	PRINCIPAL. When Due.	PRINCIPAL. Outstanding.	Sinking Funds.
City Hall Loan, 1907, Reg.	1907	4	J. and J.	July 1, 1908 to July 1, 1927. $9,000 even years, $8,000 odd years.	$136,000 00	
Fire Dept. Loan, 1906	1906	4	May and N.	Nov. 1, 1907 to Nov. 1, 1916. $4,000 annually..	20,000 00	
Fire and Police Buildings Loan, Reg.	1910	4	A. and O.	Oct. 1, 1911 to Oct. 1, 1930. $17,000 annually..	323,000 00	
Locust Street Extension	1911	4	A. and O.	Oct. 1, 1912 to Oct. 1, 1921. $2,000 annually....	20,000 00	
Municipal Building Loan, Cou. or Reg.	1909	3½	May and N.	Nov. 1, 1910 to Nov. 1, 1949. $15,000 annually	570,000 00	
Municipal Building Loan, Cou. or Reg.	1910	4	May and N.	Nov. 1, 1911 to Nov. 1, 1950	390,000 00	
North Street Extension, Reg.	1909	4	A. and O.	Oct. 1, 1910 to Oct. 1, 1919. $20,000 annually.	160,000 00	
Public Parks, Reg.	1903	3½	Jne. and D.	June 1, 1923	125,000 00	$52,722 25
Public Buildings Loan	1911	4	A. and O.	Oct. 1, 1912 to Oct. 1. 1931. $16,000 annually..	320,000 00	
River Front Loan, Reg.	1908	4	A. and O.	Oct. 1, 1909 to Oct. 1, 1918. $2,000 annually....	14,000 00	
School Bonds, '03, Cou. or Reg.	1903	3½	M. and S.	September 1, 1923	40,000 00	15,327 35
" " Reg.	1895	4	A. and O.	October 1, 1915	35,000 00	30,178 48
" " High "	1897–8	4	J. and J.	January 1, 1917	370,000 00	256,261 86
" " " "	1897	4	J. and J.	July 1, 1898 to 1917. $4,500 annually	27,000 00	
" " " "	1898	3½	J. and J.	July 1, 1899 to 1918. $4,200 annually	29,400 00	
" " Kensington Avenue, 1908 Reg.	1908	4	A. and O.	Oct. 1, 1909 to Oct. 1, 1928. $5,500 annually....	93,500 00	
" " Lincoln	1909	4	A. and O.	Oct. 1, 1910 to Oct. 1, 1929. $5,000 annually....	90,000 00	
" " Reg	1898	3½	J. and J.	July 1, 1899 to 1918. $4,500 annually	31,500 00	
" " 1900 "	1900	3½	Jne. and D.	December 1, 1919	20,000 00	
" " 1900 Cou. or Reg.	1900	3	Jne. and D.	June 1, 1920	125,000 00	74,903 19
" " 1901 Reg.	1901	3½	Mch. and S.	September 1, 1921	125,000 00	59,108 20
" " 1902 "	1902	3½	A. and O.	October 1, 1922	55,000 00	22,239 44
" Technical High "	1905–6	3½	J. and J.	January 1, 1925	342,000 00	
" White Street "	1905	3½	J. and J.	January 1, 1925	54,000 00	115,577 08
School Loan, 1906 Cou. or Reg.	1906	4	May and N.	November 1, 1926	207,000 00	40,643 49
Sewer Bonds, Cou. or Reg.	1900	3	Jne. and D.	June 1, 1930	142,000 00	43,958 11
" " 1901 Reg.	1901	3½	Mch. and S.	Sept. 1, 1902 to 1926. $1,000 annually.	15,000 00	
Sewer Loan, 1904 "	1904	3½	F. and A.	Aug. 1, 1905 to 1924. $2,000 annually	26,000 00	
Sewer Loan, 1908 "	1908	4	A. and O.	Oct. 1, 1909 to Oct. 1, 1928. $2,500 annually...	42,500 00	
Street, School and Sewer Loan, 1907 Reg.	1908	4	M. and N.	November 1, 1917	125,000 00	48,616 77
Water Street Extension and Rifle Range, 1908 Reg.	1908	4	A. and O.	Oct. 1, 1909 to Oct. 1, 1918. $5,000 annually....	35,000 00	
Water Bonds. Coupon	1890	3½	A. and O.	October 1, 1920	125,000 00	
" " "	1893	4	A. and O.	April 1, 1913	200,000 00	208,531 11
" " "	1893	4	A. and O.	October 1, 1923	150,000 00	
" " Little River, Cou. or Reg.	1907	4	J. and J.	Jan. 1, 1910 to Jan. 1, 1936. $10,000 annually..	250,000 00	
" " Little River, Cou. or Reg.	1908	4	J. and J.	Jan. 1, 1911 to Jan. 1, 1937. $10,000 annually..	260,000 00	
" " Little River, Cou. or Reg.	1909	3½	J. and J.	Jan. 1, 1912 to Jan. 1, 1938. $40,000 annually..	1,080,000 00	
" " Little River, Cou. or Reg.	1910	3½	J. and J.	Jan. 1, 1913 to Jan. 1, 1939. $14,000 annually..	378,000 00	
Totals					$6,550,900 00	$968,067 33

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PURPOSES FOR WHICH THE FUNDED DEBT WAS CREATED.

Water works (exempt),		$2,443,000 00
Schoolhouses:—		
Central high,	$370,000 00	
Technical high,	346,500 00	
Other schools,	1,054,900 00	
	$1,771,400 00	
Abbe avenue overhead pass,	62,000 00	
Fire department buildings,	124,000 00	
Fire and police headquarters,	323,000 00	
Isolation hospital,	18,000 00	
Locust street extension,	20,000 00	
Municipal heating plant,	78,000 00	
Municipal group, buildings (exempt),	960,000 00	
Municipal group, land,	136,000 00	
North street extension,	160,000 00	
Parks and buildings,	161,000 00	
Rifle range,	7,000 00	
River front (exempt),	14,000 00	
Sewers,	245,500 00	
Water street extension,	28,000 00	
Debt exclusive of water debt,		4,107,900 00
Total debt,		$6,550,900 00

The above bonded debt is issued at the following rates of interest:—

$267,000 00 at 3 per cent. per annum.
3,015,900 00 at 3½ per cent. per annum.
3,268,000 00 at 4 per cent. per annum.

Total, $6,550,900 00 at an average interest rate of 3.73 per cent. per annum.

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LIABILITIES AND CASH ASSETS, NOVEMBER 30, 1911.

LIABILITIES.

Funded debt,		$6,550,900 00

CASH ASSETS.

Due from the Commonwealth as follows:—		
For state aid,	$10,958 00	
For military aid,	35 00	
For burial of soldiers and sailors,	851 00	
For balance of corporation tax, 1910,	13,988 06	
Due on taxes of 1911 (less $15,000 estimated for abatements),	380,843 67	
Due on taxes, 1910,	25,379 50	
Due from abutters for watering streets in 1910 and 1911,	7,304 66	
Due the following departments for labor, material, etc.:—		
Forestry,	212 10	
Garbage collection,	413 90	
Highways and bridges,	10,819 89	
Isolation hospital,	3,377 49	
Lighting streets,	53 94	
Pauper department,	4,471 46	
Police and watch,	130 87	
Schools,	1,032 00	
Schools, city property,	5 00	
Sewers and drains,	399 52	
Technical high school,	880 00	
Technical high school, commercial,	120 00	
Walks and curbing,	4,710 94	
Water works,	3,192 21	
Watering streets,	9 74	
Cash in hands of Water Commissioners,	433 21	
Sinking funds (Commissioners' report),	968,067 33	
Cash in treasury,	1,127,369 20	
Total cash assets,		2,565,058 69
Net indebtedness,		$3,985,841 31
Increase of funded debt during the year,		$205,800 00

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CASH BALANCES.

Unexpended balances in special appropriations and accounts included in the cash balance at the close of the fiscal year:—

Bridge Commission,	$1,978 35	
Court Square extension,	42,566 12	
Central street school, additional land,	535 87	
Central heating plant,	26,041 48	
Charter revision,	741 65	
Forest Park additions,	10 00	
Forest Park, new buildings,	8,835 56	
Fire apparatus, motor,	20,135 32	
Fire station, North street,	61,097 50	
Fire station, Pine street addition,	7,839 21	
Gerrish Park,	839 44	
Highways and bridges, street railway taxes,	42,245 48	
High schools, lunch fund,	1,394 05	
Isolation hospital additions,	16,681 66	
Little River water supply,	190,127 94	
Lincoln school,	2,631 25	
Locust street extension,	4,542 50	
Municipal group,	552,223 51	
North street extension,	226 19	
Pecousic avenue, relocation and improvements,	5,509 83	
Premium on city bonds,	23,658 89	
Public parks,	1,667 61	
River front,	4,367 13	
Schoolhouse, Sumner avenue,	35,056 10	
School buildings, fireproofing,	1,311 68	
Total amount,		$1,052,264 32
Amount included in cash balance available for water works sinking fund,		9,952 96
Unappropriated cash at the beginning of the fiscal year of 1912,		$65,151 92
Cash in Treasury, December 1, 1911,		$1,127,369 20

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The following table compiled from previous reports, compares the appropriations, funded water debt, funded debt other than water, sinking funds, inventory of city property, and the assessors' valuation of real and personal property from the year 1890 to 1911 inclusive:—

Year.	Appropriations.	Funded Water Debt.	Other Funded Debt.	Sinking Funds.	City Property.	Assessors' Valuation, Real and Personal.
1890	$507,450	$1,325,000	$124,000		$3,565,827	$44,493,633
1891	574,425	1,325,000	214,000	$22,734	3,898,688	48,329,634
1892	609,715	1,325,000	275,000	45,259	4,016,420	50,780,987
1893	664,050	1,675,000	263,000	75,202	4,221,382	55,239,919
1894	664,000	1,650,000	280,000	112,207	4,342,837	56,449,425
1895	732,300	1,625,000	319,500	192,297	4,444,867	59,033,141
1896	801,100	1,600,000	339,000	254,340	4,584,464	61,416,091
1897	872,300	1,575,000	783,500	357,471	4,930,027	64,898,379
1898	909,650	1,550,000	997,000	411,855	5,421,178	65,699,713
1899	978,175	1,525,000	968,800	506,654	5,597,122	69,869,847
1900	1,030,000	1,500,000	1,227,100	595,282	5,839,249	72,358,481
1901	1,075,500	1,475,000	1,379,900	711,033	6,037,513	74,338,927
1902	1,130,650	1,450,000	1,362,700	794,876	6,283,191	74,838,065
1903	1,170,000	875,000	1,480,500	296,461	6,419,151	77,207,898
1904	1,230,000	835,000	1,573,300	397,141	6,587,901	78,868,058
1905	1,270,000	595,000	1,809,100	384,424	6,724,973	80,904,476
1906	1,310,000	555,000	1,987,900	435,448	7,119,159	86,505,181
1907	1,360,000	785,000	2,059,700	504,805	7,571,457	92,378,624
1908	1,510,450	1,015,000	2,377,500	591,028	8,349,084	97,098,308
1909	1,614,800	2,095,000	3,230,300	714,592	9,808,317	107,875,780
1910	1,830,420	2,463,000	3,882,100	842,991	10,555,952	118,457,151
1911	2,039,381	2,443,000	4,107,900	968,067	10,849,561	127,249,343

Respectfully submitted,

ELIPHALET T. TIFFT,

City Treasurer.

I hereby certify that I have examined, in detail, the foregoing abstracts from the accounts of the City Treasurer; that the receipts from various sources, as stated, are correct; that all expenditures are supported by vouchers regularly approved by the proper officials, and that the condition of various accounts—including cash on hand and in banks—on November 30, 1911, has been verified by comparison with records of this office.

WILLIAM C. MARSH,

Auditor of Accounts.

SPRINGFIELD, MASS., December 19, 1911.

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BOARD OF ALDERMEN, December 28, 1911.

Read, accepted, ordered printed, and sent down for concurrence.

E. A. NEWELL, *Clerk.*

COMMON COUNCIL, December 28, 1911.

Read and concurred.

GEO. J. CLARK, *Clerk.*

Presented to the Mayor for approval, December 29, 1911.

E. A. NEWELL, *City Clerk.*

MAYOR'S OFFICE, SPRINGFIELD, MASS., December 29, 1911.

Approved.

EDWARD H. LATHROP, *Mayor.*

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1911. BALANCE SHEET. 1911.

	Dr.	Cr.
City of Springfield		$9,941,612 42
City Property	$10,849,561 29	
Funded Debt		6,550,900 00
Commissioners of the Sinking Funds	968,067 33	
Cash	1,127,389 20	
Collector Taxes 1910	25,379 50	
" Taxes 1911	395,843 67	
" Street Watering Taxes 1910	609 23	
" Street Watering Taxes 1911	6,694 73	
" Water Rents, etc	3,192 21	
Commonwealth of Massachusetts	11,866 00	
Water Works Sinking Funds		9,952 96
Corporation and Excise Tax, Springfield Street Ry. Co.		42,945 48
Appropriations, special	4,168,904 84	
Bridge Commissioners		1,978 35
Charter Revision		741 65
Court Square Extension		42,566 12
Central Street School, Additional Land		535 87
Central Heating Plant		26,041 48
Forest Park Menagerie Buildings		8,835 56
Forest Park Additions		10 00
Fire Apparatus—Motor		20,135 32
Fire Station, North st		61,097 50
Fire Dept. Pine st. Addition		7,839 21
Gerrish Park		839 44
High Schools Lunch Funds		1,394 05
Isolation Hospital Addition		16,681 66
Little River Water Supply		190,127 94
Lincoln School		2,631 25
Locust st. Layout		4,542 50
Municipal Group		552,223 51
North Street Extension		226 19
Public Parks		1,667 61
Pecousic Avenue, Relocation and Improvements		5,509 83
Premium on City Bonds		25 00
Premium on City Bonds (Chap. 379, Acts 1910)		23,633 89
River Front		4,367 13
Schoolhouse, Sumner Ave.		35,056 10
School Buildings Fireproofing		1,311 68
Water Commissioners	433 21	
Collector, Bills Collectible	26,636 85	
Bills Collectible, Forestry		212 10
" " Highways and Bridges		10,819 89
" " Isolation Hospital		3,377 49
" " Lighting Streets		53 94
" " Garbage Collection		413 90
" " Pauper Department		4,471 46
" " Police and Watch		120 87
" " Schools		1,032 00
" " School, City Property Committee		5 00
" " Sewers and Drains		399 52
" " Technical High School		880 00
" " Technical High School, Commercial		120 00
" " Walks and Curbing		4,710 94
" " Watering Streets		9 74
" " Water Works		3,192 21
	$17,584,558 76	$17,584,558 76

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RECEIPTS AND EXPENDITURES

OF DEPARTMENTS IN DETAIL.

CLASSIFIED BY
THE CITY AUDITOR.

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CITY OF SPRINGFIELD.

CITY AUDITOR'S BALANCE SHEET.

NOVEMBER 30, 1911.

GENERAL REVENUE ACCOUNTS.

ASSET ACCOUNTS.		LIABILITY ACCOUNTS.	
Cash in Banks and Offices.....	$151,474.16	Current Debts:	
Cash in Water Office.....	433.21	Appropriation Balances, Special Accounts	$86,322.24
Accounts Receivable:		Reserve for Abatements.....	49,327.60
Uncollected Taxes, 1910....	25,379.50	Reserve for Water Works....	433.21
Uncollected Taxes, 1911 (Books)	395,843.67	Surplus of Revenue Assets, 1910 and previous.....	372,331.12
Special Assessments:		Surplus of Revenue Assets, 1911	64,716.37
Street Sprinkling, 1910.....	609.93	Assessments and Miscellaneous Bills in process of Collection, Unappropriated....	37,133.72
Street Sprinkling, 1911.....	6,694.73		
Water Bills.....	3,192.21		
Miscellaneous Bills.....	26,636.85		
	$610,264.26		$610,264.26

NON-REVENUE ACCOUNTS.

ASSET ACCOUNTS.		LIABILITY ACCOUNTS.		
Cash in Banks and Offices....	$975,895.04	Appropriation Balances.....		$975,895.04
Sinking Funds:		Bonded Debts:		
For Bonds within Statutory Debt Limit.....	759,536.22	Bonds within Statutory Debt Limit:		
For Water Bonds.....	208,531.11	Within Sinking Funds..	$1,765,000.00	
Net Bonded Debt (Balance Account)	5,582,832.67	Serial Bonds	1,368,900.00	
				3,133,900.00
		Bonds outside Statutory Debt Limit:		
		Serial Bonds.....		974,000.00
		Water Bonds:		
		Within Sinking Funds	$475,000.00	
		Serial Bonds.	1,968,000.00	
				2,443,000.00
	$7,526,795.04			$7,526,795.04

FIXED ASSETS.

Land, Buildings, and Equipment.....	$10,849,561.29	City of Springfield, (Balance Account) ..	$10,849,561.29

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CITY OF SPRINGFIELD.

CASH RECEIPTS AND CASH PAYMENTS OF THE CITY TREASURY

FOR THE PERIOD FROM DECEMBER 1, 1910, TO NOVEMBER 30, 1911 (INCLUSIVE).

SUMMARY.

RECEIPTS.		PAYMENTS.	
Cash Receipts from Revenue Sources	$3,054,123.05	Cash Payments for Revenue Purposes	$3,036,705.29
Cash Receipts from Non-Revenue Sources	366,643.52	Cash Payments for Non-Revenue Purposes	809,175.99
	$3,420,766.57		$3,845,881.28
Cash Balance at Beginning of Period	1,552,483.91	Cash Balance at End of Period	1,127,369.20
	$4,973,250.48		$4,973,250.48

REVENUE ACCOUNTS.

RECEIPTS.		PAYMENTS.	
From Taxes of 1911	$1,808,435.49	For Taxes.	
Taxes of Previous Years	342,901.38	State	$158,345.00
State.		County	107,858.85
Corporation Tax	147,993.27	National Bank	33,254.32
Street Railway Tax	28,803.60	Departmental	1,918,376.75
Bank Tax	5,296.80	Public Service Enterprise.	
County.		Special Funds.	
Dog Tax	4,448.28	Water Works	407,206.95
Licenses.		Charter Revision	222.60
Liquor	109,345.50	Court Street Widening	7,000.49
All Other	5,133.22	Birnie Avenue Extension	8,950.00
Special Assessments.		Fire Apparatus, Motor	11,927.78
Street Sprinkling	28,954.43	Fire Alarm System	30,000.00
Sidewalks	12,085.81	Police Signal Equipment	2,353.70
Sewers	13,147.44	Pecousic Avenue	919.65
Departmental	112,682.45	Schoolhouse, Fireproofing	9,095.73
Public Service Enterprises.		Central Street Schoolhouse	101.42
Water Works	398,070.60	High Schools Lunch	10,092.51
Interest	31,684.34	Forest Park Addition	100.00
Non-Revenue Sources.		Gerrish Park	5.37
North Street Extension	24,000.00	Forestry Buildings	7,653.32
Kensington School	250.01	Debt Requirements.	
Cash Balance at Beginning of Period	158,505.03	Funded Debt	89,200.00
		Interest	155,321.51
		Sinking Fund Requirement	72,000.00
		Non-Revenue (Outlay)	48,698.54
		Cash Balance at End of Period	151,474.16
	$3,231,687.65		$3,231,687.65

NON-REVENUE ACCOUNTS.

For Sale of Bonds	$340,000.00	For Outlays.	
Premiums on Same	15,114.00	Fire Station, North Street	$ 51.00
Offsets to Outlays	11,529.52	Fire Station, Pine Street	27,760.79
Revenue Sources.		Fire Station, Margaret Street	4,840.52
Contingencies	33,482.54	Fire and Police Headquarters	177,524.05
Interest	15,216.00	Little River Water Supply	78,383.21
Cash Balance at Beginning of Period	1,393,978.88	Forest Park Menagerie Bldg.	27,164.44
		Court Square Extension	774.09
		Lincoln School	594.75
		Sumner Avenue School	49,157.34
		Municipal Group	319,474.94
		Central Heating Plant	61,284.52
		North Street Extension	7,788.85
		Locust Street Layout	17,091.50
		River Front	2,146.40
		Kensington School	193.82
		Isolation Hospital Addition	8,841.26
		Premium Fund Account	26,104.71
		Current Expenses	24,250.01
		Cash Balance at End of Period	975,895.04
	$1,809,320.94		$1,809,320.94

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RECEIPTS AND EXPENDITURES OF DEPARTMENTS IN DETAIL.

REVENUE RECEIPTS.

GENERAL REVENUE.

Taxes.		
Current Year	$1,794,870.96	
Previous Years	342,901.38	
From the State.		
Corporation	147,993.27	
Street Railway	28,803.60	
Bank	5,296.80	
		$2,319,866.01

LICENSES AND PERMITS.

Licenses.			
Liquor		$145,793.00	
All Other.			
Amusement	$1,618.97		
Auctioneers'	46.00		
Junk, Rag	327.00		
Milk	275.00		
Pool, Billiards	869.00		
Pawnbrokers'	375.00		
Common Victualers'	365.00		
Garbage	126.25		
Sunday Sale	565.00		
Express	93.00		
All Other	273.00		
		5,133.22	
Permits.			
Marriage	$427.00		
Street	1,417.00		
		1,844.00	
			152,770.22
Forward			$2,472,636.23

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Forward		$2,472,636.23
Fines and Forfeitures.		
Court		11,159.24
Grants and Gifts.		
Grants from Other Civil Divisions.		
From County (Dog License)	$4,448.28	
Gifts from Individuals.		
For Expense	10.00	
		4,458.28
All Other General Revenue.		
Money Found	$9.28	
Sale of Lost Articles	60.25	
		69.53

COMMERCIAL REVENUE.

Special Assessments.		
For Expense.		
Street Sprinkling	$28,954.43	
For Outlays.		
Sewers	13,147.44	
Sidewalks and Curbing	12,085.81	
		54,187.68
Privileges.		
Public Service	$13,441.88	
Minor	260.00	
		13,701.88
Departmental.		
General Government.		
Collector (Fees)	$2,643.82	
City Clerk (Fees)	1,807.93	
License Commissioners	376.00	
Engineering	12.10	
		4,839.85
Protection of Life and Property.		
Police Department.		
Sale of Materials	$592.60	
Offsets to Outlays	2,089.75	
Forward	$2,682.35	$2,561,052.69

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Forward	$2,682.35	$2,561,052.69
Fire Department.		
Sale of Materials	$2,685.35	
Miscellaneous.		
Offsets to Outlays	3,663.55	
Militia.		
Rifle Range	5.00	
Inspection.		
Sealing of Weights and Measures	691.26	
Forestry.		
Care of Trees	632.45	
		10,359.96
HEALTH AND SANITATION.		
Health.		
Quarantine and Contagious Disease Hospitals	$3,945.44	
Miscellaneous	.92	
Sanitation.		
Sewer Construction	6,699.20	
Refuse and Garbage Disposal	3,907.74	
		14,553.30
HIGHWAYS AND BRIDGES.		
Repairing	$12,040.55	
Construction	11,727.00	
Sidewalks and Curbing	1,840.49	
Sprinkling	2,485.68	
Lighting	536.11	
		28,629.83
CHARITIES.		
Almshouse.		
Sale of Products	$2,675.05	
Board	4,235.76	
Reimbursements.		
From Individuals	277.22	
From Other Cities and Towns	4,224.94	
From the State	1,806.32	
Municipal General Hospital	77.16	
		13,296.45
Forward		$2,627,892.23

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Forward		$2,627,892.23
SOLDIERS' BENEFITS.		
State Aid	$14,067.00	
Military Aid	65.00	
Soldiers' Burials	777.00	
Soldiers' Relief	233.07	
		15,142.07
EDUCATION.		
Tuition	$13,920.30	
Sale of Text-Books and Supplies	660.90	
Miscellaneous.		
High Schools Lunch	10,165.01	
Rent	515.00	
Sale of Old Materials	65.58	
Offsets to Outlays	786.00	
		26,112.79
RECREATION.		
Parks and Gardens.		
Revenue for Expenses	$1,490.93	
Offsets to Outlays	1,050.55	
Bathhouses	341.54	
		2,883.02
UNCLASSIFIED.		
Damages, Reimbursements	$175.00	
Rents	150.38	
		325.38
PUBLIC SERVICE ENTERPRISES.		
Water.		
Income from Sale of Water	$398,225.70	
Offsets to Outlays	17.50	
		398,243.20
Interest.		
On Deposits	$17,986.29	
On Deferred Taxes	13,605.15	
On Department Bills	92.90	
		31,684.34
Forward		$3,102,283.03

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Forward		$3,102,283.03
Municipal Indebtedness.		
Tax Loans	$450,000.00	
Loans for General Purposes.		
Buildings.		
Mun. Heat. and Light. Plant.	78,000.00	
Menagerie Building	36,000.00	
Sumner Avenue School	84,000.00	
Pine Street Fire Station	36,000.00	
North Street Fire Station	68,000.00	
Isolation Hospital	18,000.00	
Streets.		
Locust Street Layout	20,000.00	
Premiums	15,114.00	
		805,114.00
Sinking Funds.		
From Commissioners to meet Loans for General Purposes		25,000.00
Refunds.		
Taxes	$196.68	
Licenses	2,842.00	
Special Assessments	3.58	
General Departments	2,652.42	
Public Service Enterprises	24.24	
		5,718.92
Transfers.		
Departmental.		
Engineering	$2,557.11	
Forestry	241.23	
Sewers	99.12	
Refuse and Garbage	169.05	
Street Cleaning	204.00	
Highways and Bridges	26,763.17	
Schools	101.85	
		30,135.53
		$3,968,251.48

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PAYMENTS—REVENUE.

DEPARTMENTAL.

GENERAL GOVERNMENT.

Legislative.		
Salary Clerk of the Common Council...	$300.00	
Traveling Expense to Worcester.....	8.00	
Expense, Isolation Hospital Committee.	497.70	
Charter Revision Committee.....	222.60	
All Other.....	1.55	
		1,029.85
Executive.		
Mayor.		
Salary.....	$3,833.30	
Clerk.....	1,208.32	
Stationery and Postage.....	76.54	
Printing and Advertising.....	84.24	
Telephone.....	26.33	
Typewriter.....	37.50	
All Other.....	42.13	
		5,308.36
Financial.		
Auditor.		
Salary.....	$2,500.00	
Clerks.....	1,061.96	
Stationery and Postage.....	54.56	
Printing and Advertising.....	72.72	
Telephone.....	1.25	
Adding Machine.....	255.71	
Typewriter.....	85.05	
All Other.....	68.70	
		4,099.95
Treasurer.		
Salary.....	$3,300.00	
Clerks.....	5,025.28	
Stationery and Postage.....	158.03	
Forward.....	$8,483.31	$10,438.16

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Forward	$8,483.31	$10,438.16
Printing and Advertising	244.42	
Telephone	203.56	
All Other	880.06	
		9,811.35
Collector.		
Salary	$2,700.00	
Clerks	4,968.58	
Stationery and Postage	1,147.38	
Printing and Advertising	1,349.60	
Telephone	18.63	
All Other	361.55	
		10,545.74
Assessors.		
Salary	$6,000.00	
Assistant Assessors	1,224.00	
Clerks	4,247.48	
Stationery and Postage	587.65	
Printing and Advertising	1,931.03	
Telephone	18.10	
Engineers'	397.61	
Adding Machine	225.00	
All Other	277.77	
		14,908.64
License Commissioners.		
Salaries	$250.00	
Clerk	100.00	
Stationery and Postage	20.38	
Printing and Advertising	83.70	
Rent	300.00	
All Other	33.75	
		787.83
Other Financial Officers and Accounts.		
Certification of Bonds	$726.16	
		$726.16
Forward		$47,217.88

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Forward		$47,217.88

Other General Departments.

Law.

City Solicitor and Assistant	$3,400.00	
Stenographer	447.20	
Stationery and Postage	58.31	
Printing and Advertising	2.75	
Telephone	2.84	
All Other	363.87	
		4,274.97

City Clerk.

Salary	$2,800.00	
Assistant City Clerk	1,100.00	
Clerks	2,959.21	
Stationery and Postage	104.19	
Printing and Advertising	348.82	
Telephone	75.07	
All Other	320.02	
		7,707.31

City Messenger.

Salary	$1,496.04	
Salary of Assistant	840.00	
Stationery and Postage	2.50	
Telephone	25.77	
All Other	4.58	
		2,368.89

Public Works.

Salaries, Board	$795.00	
Printing and Advertising	9.69	
Horses, Carriages, etc	78.50	
		883.19
Forward		$62,452.24

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Forward		$62,452.24
Engineering.		
Salary	$2,300.00	
Assistants	5,926.55	
Clerk	711.14	
Stationery and Postage	107.06	
Printing and Advertising	89.33	
Telephone	3.20	
Instruments	47.60	
Auto and Car Tickets	450.00	
All Other	1,057.97	
		10,692.85
Election and Registration.		
Registrars	$999.00	
Clerk	800.00	
Election Officers, etc	3,621.50	
Stationery and Postage	89.79	
Printing and Advertising	2,892.48	
All Other	564.72	
		8,967.49
Municipal Buildings.		
City Hall.		
Janitor	$780.00	
Furniture and Furnishings	237.75	
Light and Fuel	1,030.66	
Other Expenses	222.37	
		2,270.78
Municipal Heating and Lighting Plant.		
Engineer	$340.27	
Coal	1,447.18	
Fireman	342.56	
Stationery and Postage	5.42	
Supplies	135.79	
Labor	5.32	
Other Expenses	7.70	
		2,284.24
Forward		$86,667.60

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Forward			$86,667.60
PROTECTION OF PERSONS AND PROPERTY.			
Police Department.			
Salaries and Wages.			
City Marshal and Assistants	$24,390.07		
Patrolmen	94,814.18		
Other Salaries and Wages	17,613.84		
		$136,818.09	
Auto Maintenance.			
Auto Repairs	$992.79		
Auto Tires and Repairs	596.50		
Auto Supplies	268.08		
Gasoline	149.46		
		2,006.83	
Fuel and Light		1,503.90	
Equipment.			
Ambulance	$21.42		
Uniforms	2,164.51		
Signal Boxes	3,964.17		
		6,150.10	
Repairs on Buildings		1,176.89	
Pensions		1,103.00	
Other Expenses.			
Stationery and Printing	$930.64		
Telephone	826.86		
Food for Prisoners	393.59		
All Other	5,254.64		
		7,405.73	
			156,164.54
Fire Department.			
Salaries and Wages.			
Chief Engineer	$2,541.10		
Assistant Engineers	5,141.48		
Firemen	161,277.54		
Callmen	2,977.06		
Other Employees	1,168.90		
		$173,106.08	
Forward		$173,106.08	$242,832.14

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Forward		$173,106.08	$242,832.14
Horses and Care of Same.			
Horses	$605.40		
Hay, Grain and Straw	7,077.55		
Shoeing	2,068.35		
Veterinary and Medicines	515.50		
		10,266.80	
Fuel and Light.			
Coal	$3,739.42		
Wood	75.76		
Gas	46.37		
Electricity	1,110.93		
		4,972.48	
Equipment and Repairs.			
Auto	$10,599.16		
Apparatus	24,249.59		
Hose	2,650.15		
Equipment for Men	809.55		
Alarm Boxes	5,890.23		
		44,198.68	
Repairs on Buildings		2,788.72	
Pensions		1,233.33	
Other Expenses		7,371.17	
			243,937.26
Electric.			
Construction, City Wires Underground.			
Material		$85.00	
Labor		137.25	
Cable		2,666.30	
Posts		90.00	
All Other		12.75	
			2,991.30
Militia Rifle Range.			
Salaries and Wages		$446.70	
Light and Fuel		5.00	
Repairs		57.04	
Taxes and Water Rent		117.90	
Forward		$626.64	$489,760.70

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Forward	$626.64	$489,760.70
Fire Extinguisher	6.75	
Generator	20.10	
Contract	236.00	
All Other	2.34	
		891.83

Inspection of Buildings.

Inspector	$3,000.00	
Clerk	625.00	
Other Inspectors	2,300.00	
Plumbing Inspectors	3,195.80	
Stationery and Postage	186.43	
Printing and Advertising	217.32	
Telephone	84.75	
Furniture	147.75	
All Other	700.37	
		10,457.42

Inspection of Wires.

Inspector	$350.00	
Assistant Inspector	950.00	
Stationery and Postage	6.15	
Printing and Advertising	25.61	
Horses, Carriages, etc	54.00	
Telephone	.50	
Typewriting	.40	
All Other	42.70	
		1,429.36

Sealer of Weights and Measures.

Sealer	$525.00	
Deputy Sealer	999.99	
Inspector of Coal	100.00	
Stationery and Postage	3.20	
Printing and Advertising	46.13	
Carfares, Teams, etc	260.30	
Telephone	36.55	
Forward	$1,971.17	$502,539.31

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Forward		$1,971.17	$502,539.31
Rent		90.00	
Safe		25.00	
All Other		70.73	
			2,156.90
Forestry.			
Superintendent		$1,500.00	
Labor		11,752.09	
Horses and Care of Same		233.26	
All Other		3,647.68	
Salary as Smoke Inspector		129.06	
Other Expenditures for Smoke Nuisance.		63.50	
			17,325.59
Other Protection of Persons and Property.			
Fish Warden.			
Salary		$37.50	
			37.50
			$522,059.00
HEALTH AND SANITATION.			
Health.			
General Administration.			
Salaries, Agent and Physician	$3,050.00		
Clerk	800.00		
Stationery and Postage	113.20		
Printing and Advertising	205.12		
Telephone	98.83		
Lighting	5.68		
All Other	97.20		
		$4,370.03	
Quarantine and Contagious Disease Hospital.			
Board and Treatment	$868.32		
Head Nurse	720.00		
Matron and Nurses	2,184.53		
Other Employees	1,154.00		
Groceries and Provisions	2,159.26		
Forward	$7,086.11	$4,370.03	$522,059.30

Digitized by Google

Forward	$7,086.11	$4,370.03	$522,059.30
Drugs and Medicines	303.27		
Fuel and Lights	863.01		
Dry Goods and Clothing	292.71		
Rent	10.00		
Repairs	837.25		
All Other	1,310.86		
		10,703.21	
Sanitary Inspectors		2,850.43	
Tuberculosis.			
Board of Treatment	$3,890.52		
Aid	3.00		
Clothing	146.33		
		4,039.85	
Vital Statistics		1,259.53	
Other Expenses.			
Vaccination	$9.90		
Fumigation and Disinfectants	203.54		
Laboratory	735.02		
		948.46	
			24,171.51
Inspection.			
Inspection of School Children		$3,197.21	
Inspection of Meats and Provisions		1,200.00	
Inspection of Milk and Vinegar		2,653.94	
			7,051.15
Sanitation.			
Sewer Maintenance and Operation.			
Salary and General Expense	$3,172.59		
Maintenance	5,950.92		
City Yards	1,293.97		
All Other	4,173.45		
		$14,590.93	
Construction		38,815.55	
Forward		$53,406.48	$553,281.96

Digitized by Google

Forward		$53,406.48	$553,281.96
Refuse and Garbage Disposal.			
Labor, Ashes	$44,369.26		
Teams, Ashes	86.15		
Horses and Care, Ashes	2,354.70		
Equipment, Ashes	848.92		
All Other, Ashes	316.57		
Labor, Garbage	16,608.34		
Horses, Teams and Care, Garbage	3,306.54		
Equipment, Garbage	871.30		
All Other, Garbage	388.76		
		69,150.54	
Street Cleaning		44,204.02	
			166,761.04
HIGHWAYS (INCLUDING BRIDGES).			
General Administration		$7,425.13	
Repairing		101,398.78	
Construction		87,629.07	
Sidewalks and Curbing		30,536.06	
Snow Removal		22,021.43	
Sprinkling.			
Water		39,433.06	
Lighting.			
Salary of Superintendent	$1,624.98		
Labor	1,952.39		
Electricity	95,567.90		
Equipment	3,812.21		
Rent	22.00		
Auto Maintenance	676.98		
Horses and Care	152.21		
Other Expenses	450.89		
		104,259.56	
Other Expenses.			
Street Signs		19.51	
			392,722.60
Forward			$1,112,765.60

Digitized by Google

Forward			$1,112,765.60
CHARITIES.			
General Administration.			
Salary of Agent	$2,000.00		
Salaries of Clerks	1,883.75		
Stationery, Printing and Postage	189.01		
Telephone	86.68		
All Other	240.96		
		$4,400.40	
Almshouse and Farm.			
Superintendent	$1,200.00		
Other Salaries and Wages	7,701.25		
Groceries and Provisions	6,442.70		
Dry Goods and Clothing	1,577.30		
Repairs	2,780.55		
Fuel and Light	4,868.50		
Equipment	734.94		
Furniture and Furnishings	298.98		
Stock and Care	2,171.38		
Farming	825.07		
Medicines	580.74		
Wayfarers' Lodge	2,651.66		
All Other	813.04		
		32,646.11	
Outside Relief by City.			
Aid to Paupers	$1,548.52		
Burials	509.92		
Groceries, Provisions, Fuel, etc	7,445.25		
Medicines and Medical Attendance	3,490.31		
State Institutions	405.15		
		13,399.15	
Other Expenses.			
Cities	$859.82		
Towns	560.81		
		1,420.63	
All Other		15.80	
			51,882.09
Forward			$1,164,647.69

Digitized by Google

Forward			$1,164,647.69

SOLDIERS' BENEFITS.

General Administration.			
Agent's Salary		$600.00	
Agent's Expenses		11.40	
Burial Agent		46.00	
State Aid		13,214.00	
Military Aid		70.00	
Soldiers' Burials		842.00	
Soldiers' Relief		3,805.64	
			18,589.04

EDUCATION.

General Expenses.			
Administrative Salaries.			
Superintendent	$4,166.63		
Superintendent's Clerk	800.00		
Secretary of the Board	100.00		
		$5,066.63	
Other General Salaries.			
Chief Clerk	$1,966.67		
Clerks	1,683.50		
Truant Officer	2,099.93		
Schoolhouse Agent	1,829.56		
Messengers	23.71		
		7,603.37	
Other General Expenses.			
Stationery and Postage	$2,599.23		
Printing and Advertising	884.70		
Telephones	668.64		
Traveling Expenses, Committee	38.98		
Traveling Expenses, Superintendent	120.43		
School Census	690.00		
Teachers' Examinations	4.40		
Auto.	328.33		
Forward	$5,334.71	$12,670.00	$1,183,236.73

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Forward.....	$5,334.71	$12,670.00	$1,183,236.73
Typewriter.....	105.84		
All Other.....	460.20		
		5,900.75	
Teachers' Salaries.			
General.....	$345,602.15		
Cooking.....	3,071.25		
Evening Trades.....	4,073.50		
High School of Commerce.	18,761.90		
Kindergarten.....	20,866.09		
Technical High.....	49,214.70		
Vocational.....	5,568.50		
Matrons.....	1,852.50		
		449,010.59	
Text-Books and Supplies.			
Text and Reference Books	$12,339.75		
Paper.....	4,107.58		
Pianos and Tuning.....	186.30		
Handling Supplies.....	1,042.85		
Physical Training.....	724.50		
Elementary Science.....	246.18		
Freight and Cartage.....	1,102.36		
Printing.....	965.61		
Hygiene.....	578.21		
All Other.....	4,228.98		
Cooking.....	1,247.40		
Domestic Science.....	14.00		
Drawing.....	1,072.97		
Evening Trades.....	379.82		
High School of Commerce..	2,676.13		
Kindergarten.....	576.75		
Laboratory.....	1,383.94		
Manual Training.....	3,168.80		
Technical High.....	7,304.55		
Vocational.....	6,662.99		
		50,009.67	
Forward.....		$517,591.01	$1,183,236.73

Digitized by Google

Forward		$517,591.01	$1,183,236.73
Transportation.			
Teams	$710.00		
Car Fares	580.00		
		1,290.00	
Support of Truants		359.76	
Janitors' Services.			
Janitors	$41,862.09		
Special Cleaning	1,001.32		
All Other	9.50		
		42,872.91	
Fuel and Light.			
Coal	$24,678.83		
Wood	20.00		
Electricity	5,545.60		
Gas	1,157.25		
		31,401.68	
Maintenance of Buildings and Grounds.			
Carpentry	$3,334.26		
Masonry	2,054.10		
Gas, Plumbing, Steam Fitting	5,364.75		
		10,753.11	
Painting and Glazing	$4,390.42		
Lumber, Brick, etc	2,081.40		
Flags and Flagstaffs	195.40		
Janitors' Supplies	3,295.66		
Laundry Work	478.29		
Heating and Ventilating	1,504.82		
All Other	10,480.72		
Electrical Work	2,150.53		
		24,577.24	
Furniture and Furnishings.			
Desks, Chairs, etc	$1,790.97		
Clocks	46.62		
All Other	262.28		
		2,099.87	
Rent		180.00	
Forward		$631,125.58	$1,183,236.73

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Forward		$631,125.58	$1,183,236.73
Other Expenses.			
Diplomas	$250.91		
Medals and Prizes	30.88		
Graduation Exercises	334.28		
Insurance	386.70		
Carriage and Express	62.19		
Miscellaneous Printing and Advertising	114.60		
		1,179.56	
High Schools Lunch.			
Services	$3,197.94		
Supplies	6,894.57		
		10,092.51	
Central Street School		101.42	
			642,499.07
LIBRARIES.			
Appropriation		$50,000.00	
Dog Licenses		4,448.28	
			54,448.28
RECREATION.			
General Administration.			
Superintendent	$2,499.96		
Clerk	900.00		
		$3,399.96	
Other Expenses.			
Furnishings	$108.91		
Stationery and Postage	61.21		
Printing and Advertising	213.91		
Auto	1,049.72		
Telephone	124.47		
Typewriter	92.25		
All Other	394.73		
		2,045.20	
Parks and Gardens.			
Salaries and Wages		29,685.40	
Forward		$35,130.56	$1,880,184.08

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Forward		$35,130.56	$1,880,184.08
Other Expenses.			
Motor Truck	$3,454.55		
Horses and Teams	3,857.96		
Miscellaneous Supplies	4,488.02		
Repairs on Buildings	1,838.99		
Food, Animals	651.96		
Supplies, Menagerie Building	54.10		
All Other	1,146.74		
		15,492.32	
Playgrounds and Gymnasia.			
Salaries and Wages		6,195.15	
Gymnasium Apparatus	$1,013.46		
Repairs on Buildings	499.11		
All Other	471.40		
		1,983.97	
Celebrations.			
Fourth of July		1,500.00	
			60,302.00
UNCLASSIFIED.			
Damages to Persons and Personal Property		$3,352.50	
Memorial Day		685.00	
City Clocks		15.00	
Drinking Fountains		670.16	
Printing and Stationery.			
Expert Printer		349.92	
Stationery and Postage		39.90	
Printing and Advertising		3,544.28	
All Other		5.80	
			$8,662.56
Forward			$1,949,148.64

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Forward		$1,949,148.64
PUBLIC SERVICE ENTERPRISES.		
Water.		
Maintenance and Operation	$222,879.27	
Construction	55,015.87	
		277,895.14
ADMINISTRATION OF TRUST FUNDS.		
Expenses of Sinking Fund.		
Rent of Safe Deposit Box	$25.00	
Typewriting	2.50	
		27.50
INTEREST.		
Temporary Loans.		
Anticipation of Taxes	$3,575.00	
Loans for General Purposes.		
Highways	8,480.00	
Sewers	16,560.00	
Schools	57,986.00	
Parks	5,015.00	
All Other	63,705.55	
Loans for Public Service Enterprises.		
Water	90,205.00	
		245,526.55
MUNICIPAL INDEBTEDNESS.		
Temporary Loans.		
Anticipation of Taxes	$450,000.00	
Bonds and Notes from Revenue.		
Highways, North Street Extension	20,000.00	
Sewer	5,500.00	
Schools	23,700.00	
Parks	2,000.00	
All Other	63,000.00	
Public Service Enterprises.		
Water	20,000.00	
		584,200.00
Forward		$3,056,797.83

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Forward			$3,056,797.83
Sinking Funds.			
Taxes, Earnings, etc		$72,000.00	
Water Sinking Fund Surplus		19,278.41	
			91,278.41
Premium Funds.			
Premiums on Bonds			25,000.00
Agency Transactions.			
Taxes.			
State		$158,345.00	
Non-Resident Banks		33,254.32	
County		107,858.85	
Liquor Licenses.			
Remitted to State		36,447.50	
			335,905.67
Refunds.			
Taxes		$196.68	
Licenses		2,842.00	
Special Assessments		3.58	
General Departments.			
Auditor	$107.80		
Certification of Bonds	378.55		
Law	266.64		
Police	205.01		
Fire	142.34		
Forestry	62.40		
Sewer	31.63		
Street	31.22		
Charities	867.37		
Schools	547.75		
Park	2.86		
Printing	8.85		
		2,652.42	
Public Service Enterprises		24.24	
			5,718.92
Forward			$3,514,700,83

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Forward		$3,514,700.83
TRANSFERS.		
Engineering Department	$2,557.11	
Forestry	241.23	
Sewers and Drains	99.12	
Refuse and Garbage	169.05	
Street Cleaning	204.00	
Highways and Bridges	26,763.17	
Education	101.85	
		30,135.53
Total Payments, Revenue		$3,544,836.36

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PAYMENTS—NON-REVENUE.

DEPARTMENTAL.

General Government.		
Municipal Group.		
Contracts	$306,543.91	
Architects	8,115.58	
Clerk of the Works	2,140.14	
Watchman	139.50	
Consulting Engineers	1,625.70	
Traveling Expenses	464.75	
Printing and Advertising	74.05	
Office Expenses	324.16	
All Other	47.15	
		$319,474.94
Central Heating Plant.		
Architects	$1,500.00	
Contractors	58,328.00	
Clerk	200.00	
Consulting Engineers	1,255.87	
All Other	.65	
		61,284.52
Protection of Persons and Property.		
Fire Department.		
Fire Station, Margaret Street	$4,830.52	
Fire Station, North Street	51.00	
Fire Station, Pine Street	27,760.79	
Fire Headquarters	126,932.27	
		159,574.58
Police Department.		
Police Headquarters		97,646.48
Forestry Department.		
New Building	$8,461.17	
Architect, Typewriting, etc	501.32	
		8,962.49
Health and Sanitation.		
Health.		
Isolation Hospital Addition		8,841.26
Forward		$655,784,27

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Forward		$655,784.27
Highways and Bridges.		
Highways.		
Locust Street Layout	$17,091.50	
North Street Extension	7,788.85	
Birnie Avenue Extension	8,950.00	
		33,830.35
Education.		
New Buildings.		
Lincoln School	$594.75	
Sumner Avenue School	49,157.34	
Kensington Avenue School	193.52	
Looking up Site	100.00	
		50,045.61
Recreation.		
Parks and Gardens.		
Forest Park Menagerie Building	$27,164.44	
River Front	2,146.40	
Court Square Extension	774.09	
Land Taken	401.46	
		30,486.39
Public Service Enterprise.		
Water.		
Little River Water Supply.		
Labor	$6,752.48	
Contracts	29,213.68	
Engineering	5,752.56	
House and Land Damages	16,716.81	
Carriage Hire, Teams and Freight	204.76	
Experts	4,661.62	
Witnesses in Land Damages	1,137.50	
Auto Services	110.00	
Supplies	12,707.93	
All Other	1,125.87	
		78,383.21
Total Payments, Non-Revenue		$848,529.83
Total Payments, Revenue		$3,544,836.36
Total Payments, Non-Revenue		848,529.83
Total Payments		$4,393,366.19

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THE FOLLOWING TABLE SHOWS THE RECEIPTS AND EXPENDITURES OF THE

REVENUE AND NON-REVENUE ACCOUNTS,

ALSO THAT THE CITY HAS SPENT $211,965.03 FROM REVENUE RECEIPTS FOR OUTLAYS OR NEW CONSTRUCTION FOR WHICH BONDS COULD HAVE BEEN ISSUED.

REVENUE RECEIPTS AND PAYMENTS.

RECEIPTS.		PAYMENTS.	
From Taxes	$2,020,407.84	Departmental.	
Licenses and Permits	116,322.72	General Government	$86,667.60
Fines and Forfeits	11,159.24	Protection of Life and Property	432,400.40
Grants and Gifts	4,458.28	Health and Sanitation	159,168.15
All Other General Revenue	69.58	Highways and Bridges	305,093.53
Special Assessments.		Charities	51,882.09
Street Sprinkling	28,954.43	Soldiers' Benefits	18,589.04
Privileges	13,701.88	Education	642,499.07
Departmental.		Libraries	54,448.28
General Government	4,889.85	Recreation	56,853.95
Protection of Life and Property	4,606.66	Unclassified	8,662.56
Health and Sanitation	7,854.10	Public Service Enterprises.	
Highways and Bridges	16,902.83	Water Works	222,879.27
Charities	13,296.45	Administration of Invested Funds	27.50
Soldiers' Benefits	15,142.07	Interest	245,526.55
Education	25,326.79	Municipal Indebtedness	134,200.00
Recreation	1,832.47	Sinking Funds	91,278.41
Unclassified	325.38		
Public Service Enterprises.			
Water Works	398,225.70	Total Revenue Payments	$2,510,176.40
nIterest	31,684.34	Outlays Paid from Revenue	211,965.03
Total Revenue Payments	$2,715,110.56		
Cash Balance Dec. 1st, 1910	158,505.03	Cash Balance, Nov. 30th, 1911	151,474.16
	$2,873,615.59		$2,873,615.59

NON-REVENUE RECEIPTS AND PAYMENTS.

RECEIPTS.		PAYMENTS.	
For Special Assessments.		For	
Sewers	$13,147.44	Municipal Group	$319,474.94
Sidewalks and Curbing	12,085.81	Central Heating Plant	61,284.52
Fire and Police Headquarters	2,089.75	Police Headquarters	97,646.48
Sewer Construction	6,699.20	Fire Buildings and Equipment	162,565.88
Fire Department, Offsets to Outlays	3,663.55	Forestry Building	8,962.49
Sewer Construction	4,121.00	Isolation Hospital Addition	8,841.26
North Street Extension	7,606.00	New Sewers	38,815.55
Schools, Offsets to Outlays	786.00	Street Construction	121,459.42
Parks and Gardens	1,050.55	New Schoolhouses	50,045.61
Water, Miscellaneous	17.50	Park, Construction	31,013.95
Municipal Indebtedness	805,114.00	River Front	2,146.40
Sinking Funds	25,000.00	Court Square Extension	774.09
		Water Works, Construction	55,015.87
Total Non-Revenue Receipts	$881,380.80	Little River Water Supply	78,383.21
Revenue Cash Received for Non-Revenue Purposes	211,965.03	Municipal Indebtedness	450,000.00
Cash Balance, Dec. 1st, 1910	1,393,978.88	Sinking Funds	25,000.00
		Total Non-Revenue Payments	$1,511,429.67
		Cash Balance, Nov. 30th, 1911	975,895.04
	$2,487,324.71		$2,487,324.71

WM. C. MARSH,
City Auditor.

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CITY ORDINANCES FOR 1911.

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CITY OF SPRINGFIELD.

ORDINANCES OF 1911.

CHAPTER I.

AN ORDINANCE

ESTABLISHING THE COMPENSATION OF THE ASSISTANT CITY SOLICITOR.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The compensation of the Assistant City Solicitor is hereby established at Twelve hundred dollars per annum.

SECTION 2. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved January 10, 1911.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER II.

AN ORDINANCE

ESTABLISHING THE COMPENSATION OF INSPECTORS OF PLUMBING.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The annual compensation of the Inspectors of Plumbing of the City of Springfield is hereby established at eighteen hundred dollars for the Inspector and Sixteen hundred dollars for the Assistant Inspector.

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SECTION 2. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved February 14, 1911.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER III.

CITY OF SPRINGFIELD.

In the Year One Thousand Nine Hundred and Eleven.

AN ORDINANCE

RELATING TO THE BOARD OF HEALTH.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The Board of Health shall organize on the first Monday of February in each year, and shall choose one of its members as chairman and elect a clerk who is not a member of the Board. That member of the Board who is a doctor of medicine shall be known as the Health Physician. If more than one member is a doctor of medicine, the City Council shall elect one of the members who is a doctor of medicine as such Health Physician. The Health Physician shall perform all such medical and sanitary duties as may be required by the Board of Health and the Mayor and the City Council. He shall attend the meetings of the Board; shall make all necessary bacteriological examinations, and shall perform such other duties as may be prescribed by Ordinance. In case of the prevalence or impending of any infectious or contagious disease within the city, he shall give to the Mayor or either Board of the City Council such professional advice and assistance as may be required by any of them.

SECTION 2. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved March 4, 1911.

Attest: E. A. NEWELL, *City Clerk.*

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CHAPTER IV.

AN ORDINANCE

FIXING THE COMPENSATION OF CERTAIN MEMBERS OF THE POLICE DEPARTMENT.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The compensation of night and day watchmen of the police force is hereby established as follows, to wit: Each who is and may be serving his first year of service, or the first year of service after an interval of non-service, two dollars and fifty cents per day; each who is and may be serving his second year of continuous service, two dollars and seventy-five cents per day; each who is and may be serving his third, or any subsequent year of continuous service, three dollars per day.

SECTION 2. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

SECTION 3. This Ordinance shall take effect June 1, 1911.

Approved March 14, 1911.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER V.

AN ORDINANCE

RELATING TO HAWKERS AND PEDDLERS.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. No person shall hawk or peddle any of the articles enumerated in Section 15 of Chapter 65 of the Revised Laws, or acts amendatory thereof, until he shall have appeared in person before the chief of police and given his name and residence, which shall be recorded by the chief of police in a book kept for that purpose.

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SECTION 2. No person shall sell upon any sidewalk of any public way any goods or articles to a person on such public way unless he has appeared in person before the chief of police in the manner and for the purpose provided in the foregoing section.

SECTION 3. Any person violating any of the provisions of this Ordinance shall be liable to a penalty not exceeding twenty dollars for each offense.

SECTION 4. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved March 28, 1911.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER VI.

AN ORDINANCE

ESTABLISHING THE COMPENSATION OF THE SMOKE INSPECTOR.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The compensation of the Smoke Inspector is hereby established at two hundred and fifty dollars per annum.

SECTION 2. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved April 25, 1911.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER VII.

AN ORDINANCE

ESTABLISHING THE COMPENSATION OF THE SUPERINTENDENT AND ASSISTANT SUPERINTENDENTS OF STREETS.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. The compensation of the Superintendent and

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Assistant Superintendents of Streets is hereby established as follows:—

Superintendent of Streets, Three thousand dollars per annum.

Assistant Superintendent of Streets, in charge of the Highway Department, Two thousand and five hundred dollars per annum.

Assistant Superintendent of Streets in charge of sewers, Two thousand dollars per annum.

SECTION 2. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved September 12, 1911.

Attest: E. A. NEWELL, *City Clerk.*

CHAPTER VIII.

AN ORDINANCE

ACCEPTING SECTION 12, CHAPTER 26, REVISED LAWS, PROVIDING FOR THE APPOINTMENT OF CONSTABLES BY THE MAYOR AND ALDERMEN.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. Section 12 of Chapter 26, Revised Laws, is hereby accepted, said Section being as follows:—

SECTION 12. In a city in which the city council accepts the provisions of this section, or has accepted the corresponding provisions of earlier laws, constables shall be appointed by the mayor and aldermen.

Approved September 19, 1911.

Attest: E. A. NEWELL, *City Clerk.*

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CHAPTER IX.

AN ORDINANCE

AMENDING SECTION 46 AND SECTION 47 OF CHAPTER 37 OF THE REVISED ORDINANCES OF THE CITY OF SPRINGFIELD RELATING TO THE PREVENTION OF INJURIOUS PRACTICES IN THE STREETS.

Be it ordained by the City Council of the City of Springfield, as follows:—

SECTION 1. Section 46 of Chapter 37 of the Revised Ordinances of the City of Springfield relating to the prevention of injurious practices in the streets is hereby amended by striking out the words "City Clerk" and substituting therefor the words "Superintendent of Streets," so that said Section as amended shall read as follows:—

SECTION 46. No person or corporation shall place or maintain in the sidewalk of any public street in the city any covering made of metal or the combination of metal and any other material, without first having been authorized so to do by a written license from the supervisors of highways and bridges, which license shall not be valid until recorded by the superintendent of streets in a book to be kept for the purpose; and no such license shall be given except on condition that the licensee give to the city a bond, to be approved by the mayor, conditioned to protect said city from loss by reason of any injuries any party may suffer from the breaking of such covering or the slipping or falling thereon by any traveler in the street.

SECTION 2. Section 47 of said Chapter 37 is hereby amended by striking out the word "Clerk" and substituting therefor the word "Superintendent," so that said Section as amended shall read as follows:—

SECTION 47. Said board shall not authorize the placing or maintaining in said sidewalks of any such covering except upon the express condition to be stated in said license, that the same shall be so constructed as not to present a smooth surface on which travelers may slip, or a surface so rough as to be an obstruction to public travel. Any license granted by said board may be revoked at any

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time by a written revocation to be filed with said Superintendent, who shall note the filing thereof on the recorded copy of the license, and each license shall state that it is subject to such revocation.

SECTION 3. All Ordinances or parts of Ordinances inconsistent herewith are hereby repealed.

Approved October 10, 1911.

Attest: E. A. NEWELL, *City Clerk.*

ORDERED, That Section 18 of Article 1 of the Rules of the Road be and is hereby amended by adding thereto the following:

"Except as provided in said Section 17, no horse-drawn or motor vehicle shall pass through Townsley Avenue except in an easterly direction from Main Street to Market Street," so that said section as amended shall read as follows:

SECTION 18. No vehicle, other than those excepted by Section 17, shall remain standing on that part of Main Street bounded southerly by State Street and extending northerly to railroad arch, so-called, for a longer consecutive period than five minutes unless such vehicle is taking on or discharging a load. Except as provided in said Section 17 no horse-drawn or motor vehicle shall pass through Townsley Avenue except in an easterly direction from Main Street to Market Street.

Approved January 24, 1911.

Attest: E. A. NEWELL, *City Clerk.*

AN ORDER AMENDING RULE 4 AND RULE 15 OF THE RULES AND ORDERS OF THE MAYOR AND ALDERMEN FOR THE REGULATION OF HACKNEY CARRIAGES, DRAYS, TRUCKS, ETC.

ORDERED, That Rule 4 and Rule 15 of the Rules and Orders of the Mayor and Aldermen for the Regulation of Hackney Carriages, Drays, Trucks, etc., be and they are hereby amended by striking out both of said rules and substituting for each the following: For

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every license applied for there shall be paid to the City Clerk for the use of the City, one dollar when the application is made; if the license is not granted the money so paid shall be refunded to the applicant.

Approved February 7, 1911.

Attest: E. A. NEWELL, *City Clerk.*

AN ORDER REGULATING THE LICENSING OF NON-RESIDENT AUCTIONEERS.

SECTION 1. A non-resident auctioneer who has no regular established place of business in this city shall not sell at Public Auction, goods, wares and merchandise brought into this city for the purpose of being sold at Public Auction, unless he shall obtain from the Mayor and Board of Aldermen a special license to hold such sales.

SECTION 2. The license fee for such non-resident auctioneers shall be the sum of One Hundred Dollars.

SECTION 3. Whoever violates the provisions of this order shall be punished by a fine not exceeding One Hundred Dollars.

SECTION 4. The order passed by the Board of Aldermen, December 28, and approved by the Mayor, December 29, 1910, regulating the licensing of non-resident auctioneers, is hereby rescinded and annulled.

Approved February 28, 1911.

Attest: E. A. NEWELL, *City Clerk.*

ORDERED, That Section 12 of Article 1, Rules of the Road, is hereby amended by adding the words "except that southbound cars on Main street shall stop at the post immediately north of Worthington street, instead of the post next southerly of said Worthington street," so that said Section 12 shall read as follows:

SECTION 12. Surface cars taking on or discharging passengers: Surface cars shall stop on the far side of the street at the crosswalk to discharge or take on passengers except that south-

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bound cars on Main street shall stop at the post immediately north of Worthington street, instead of the post next southerly of said Worthington street.

Approved March 4, 1911.

Attest: E. A. NEWELL, *City Clerk.*

AN ORDER PROVIDING CERTAIN TERMS AND CONDITIONS FOR LICENSES FOR BILLIARD, POOL OR SIPPIO TABLES.

ORDERED, That all applications for Billiard, Pool or Sippio table licenses shall be accompanied by a fee of one dollar and shall be advertised in such newspaper as the Board of Aldermen may direct at least ten days before the license applied for is granted and the applicant shall post forthwith a copy of said advertisement in a conspicuous place on the premises. All applications shall be referred to the Chief of Police for approval. Places licensed for the keeping of pool or billiard tables shall be closed all day on Sunday and on week days at 12 o'clock midnight unless otherwise specified in the license. Conviction of entertaining or allowing minors in any place so licensed without written consent of parents or guardians, or of any form of gambling shall render the license void. The license fee for each pool, billiard or sippio table is hereby established at Five dollars for the first table and Three dollars for each additional table.

Approved March 14, 1911.

Attest: E. A. NEWELL, *City Clerk.*

ORDERED, That Section 18 of Article 1, Rules of the Road, be and is hereby amended by adding to said section the words "Nor shall any such vehicle or trolley car remain standing on Court street within one hundred feet of Main street," so that said section as amended shall read as follows:

SECTION 18. No vehicle, other than those excepted by Section

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17, shall remain standing on that part of Main street bounded southerly by State street and extending northerly to railroad arch, so-called, for a longer consecutive period than five minutes unless such vehicle is taking on or discharging a load. Except as provided in said Section 17 no horse-drawn or motor vehicle shall pass through Townsley avenue except in an easterly direction from Main street to Market street; nor shall any such vehicle or trolley car remain standing on Court street within one hundred feet of Main street.

A true copy of an order passed by the Board of Aldermen, August 7, 1911.

Attest: E. A. NEWELL, *City Clerk.*

ORDERED, That Section 18 of Article 1 of the Rules of the Road be and is hereby amended by striking out the whole of said section and substituting therefor the following:

SECTION 18. Between the hours of 6.30 a.m. and 6.30 p.m. no vehicle, other than those excepted by Section 17, shall remain standing on that part of Main street bounded southerly by Union street and extending northerly to the Main Street arch for a longer consecutive period than five minutes unless such vehicle is taking on or discharging a load. No such vehicle or trolley car shall remain standing on Court street within one hundred feet of Main street at any time, except that a trolley car may stop there long enough to receive passengers. Except as provided in said Section 17 no horse-drawn or motor vehicle shall pass through Townsley avenue except in an easterly direction from Main street to Market street.

Approved Sept. 19, 1911.

Attest: E. A. NEWELL, *City Clerk.*

ORDERED, That Section 12 of Article 1 of the Rules of the Road be amended by striking out the whole of said section and substituting therefor the following:

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SECTION 12. Surface cars taking on or discharging passengers: Surface cars shall stop on the far side of the street at the crosswalk to discharge or take on passengers except at the following points. The stopping places on the West Side of Main for southbound cars shall be as follows:

West Side. South Bound.

No. 1. White Post in front of Barker's Drug Store, same as at present. Pole marked—Front end of car stops here.

170 ft. to stop No. 2.

No. 2. Stop in front of Nelson Hotel, North Side of Hampden St. Pole marked—Rear end of car stops here.

360 ft. to stop No. 3.

No. 3. Stop at Post Office same as at present. Pole already marked.

250 ft. to stop No. 4.

No. 4. Stop in front of Kinsman's Store, north side of Bridge St. Pole marked—Rear end of car stops here.

320 ft. to stop No. 5.

No. 5. Stop, present stop near Besse Place. Pole marked—Front end of car stops here.

240 ft. to stop No. 6.

No. 6. Stop south side Vernon St., opposite Forbes & Wallace. Pole marked—Rear end of car stops here.

260 ft. to stop No. 7.

No. 7. Stop north side of Pynchon St., opposite Green's Drug Store. Pole marked—Front end of car stops here.

230 ft. to stop No. 8.

No. 8. Same as at present, Smith & Murray's, north side Court St. Pole marked—Front end of car stops here.

400 ft. to stop No. 9.

No. 9. Stop front of Walker Building, south side of Elm St. Pole marked—Front end of car stops here.

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The stopping places for cars going North on the East Side shall be as follows:

East Side. North Bound.

330 ft. to stop No. 10.

No. 10. Stop front of Brewers' Drug Store, south side of Sanford St. Pole marked—Front end of car stops here.

230 ft. to stop No. 11.

No. 11. Front of Adams' Drug Store, south side of Court St. Pole marked—Rear end of car stops here.

270 ft. to stop No. 12.

No. 12. Front of Union Trust, south side of Townsley Ave. Pole marked—Front end of car stops here.

230 ft. to stop No. 13.

No. 13. Front of Woods' Store, south side of Harrison Ave. Pole marked—Front end of car stops here.

350 ft. to stop No. 14.

No. 14. Front of Meekins, Packard & Wheat, south side of Hillman St. Pole marked—Front end of car stops here.

210 ft. to stop No. 15.

No. 15. Front of Lerche's Drug Store, south side of Bridge St. Pole marked—Front end of car stops here.

250 ft. to stop No. 16.

No. 16. Present stop at the Worthy, south side of Worthington St. Pole marked—Rear end of car stops here.

300 ft. to stop No. 17.

No. 17. Front of Smith's Drug Store, south side of Taylor St. Pole marked—Front end of car stops here.

400 ft. to stop No. 18.

No. 18. Present stop near station entrance. Pole marked—Car stops here.

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Cars that pass around Court Square shall stand only on Cour Square Avenue.

All rules inconsistent herewith are hereby repealed.

Approved Sept. 20, 1911.

Attest: E. A. NEWELL, *City Clerk.*

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TAXES.

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TAXES.

TAXES—1852—DAVID A. ADAMS, Collector.

Amount of County tax committed,	$7,785 57	
Amount of City tax committed,	31,213 72—	$38,999 29
Received of David A. Adams, Collector, cash and allowances, as follows: —		
By cash paid County tax,	$7,785 57	
By cash on account of City tax,	28,571 72	
By discount on taxes, allowed,	1,488 36	
By abatements allowed,	1,153 64—	$38,999 29

Rate—Six dollars and fifty cents on one thousand dollars. Poll tax, one dollar and fifty cents.

Attest. JOSEPH INGRAHAM, *City Treasurer.*

TAXES—1853—JAMES KIRKHAM, Collector.

Amount of State tax committed,	$3,327 00	
Amount of County tax committed,	7,229 45	
Amount of City tax committed,	38,338 85—	$48,895 30
Received of James Kirkham, Collector, cash and allowances, as follows: —		
By cash paid County tax,	$7,229 45	
By cash on account of City tax,	38,746 27	
By discount allowed on taxes,	1,829 39	
By abatements allowed,	1,090 19—	$48,895 30

Rate—Seven dollars and twenty cents on one thousand dollars. Poll tax, one dollar and sixty-five cents.

Attest, JOSEPH INGRAHAM, *City Treasurer.*

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TAXES—1854—JOHN B. KIRKHAM, COLLECTOR.

Amount of State tax committed,	$3,327 00	
Amount of County tax committed,	7,785 57	
Amount of City tax committed,	41,512 98—	$52,625 55
Received of John B. Kirkham, Collector, cash and allowances, as follows:—		
By cash paid County tax,	$7,785 57	
By cash on account of City tax,	41,289 37	
By discount allowed on taxes,	2,142 78	
By abatements allowed on taxes,	1,407 83—	$52,625 55

Rate—Six dollars on one thousand dollars. Poll tax, one dollar and sixty-five cents.

Attest, JOSEPH INGRAHAM, *City Treasurer.*

TAXES—1855—IRA B. SAMPSON, JOHN B. KIRKHAM, AND JAMES KIRKHAM, COLLECTORS.

[Ira B. Sampson and John B. Kirkham died before the final settlement with the Treasurer.]

Amount of State tax committed,	$4,990 50	
Amount of County tax committed,	8,063 63	
Amount of City tax committed,	66,816 16	
Amount of interest,	148 30—	$80,018 59
Received of the three Tax Collectors, cash and allowances, as follows:—		
By cash paid County tax,	$8,063 63	
By cash of Ira B. Sampson,	51,000 00	
By cash of John B. Kirkham,	18,788 17	
By cash of James Kirkham,	1,362 27	
By discount on taxes allowed,	2,953 18	
By abatements allowed,	2,851 34—	$80,018 59

Rate—Eight dollars and fifty cents on one thousand dollars. Poll tax, two dollars and twenty cents.

Attest, JOSEPH INGRAHAM, *City Treasurer.*

TAXES—1856—JOHN B. KIRKHAM AND JAMES KIRKHAM, COLLECTORS.

[John B. Kirkham died before the final settlement with the Treasurer.]

Amount of State tax committed,	$6,654 00	
Amount of County tax committed,	8,480 71	
Amount of City tax committed,	54,732 40	
Amount of interest,	102 85—	$69,969 96

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Received of the two Tax Collectors, cash and allowances, as follows :—

By cash paid County tax,	$8,480 71	
By cash,	55,832 95	
By discount allowed on taxes,	3,274 41	
By abatements allowed on taxes,	2,381 49—	$69,969 96

Rate—Seven dollars and fifty cents on one thousand dollars. Poll tax, two dollars and twenty cents.

Attest, JOSEPH INGRAHAM, *City Treasurer.*

TAXES—1857—JAMES KIRKHAM, COLLECTOR.

Amount of State tax committed,	$9,981 00	
Amount of County tax committed,	9,175 86	
Amount of City tax committed,	67,745 36	
Amount of interest,	109 10—	$87,011 32

Received of James Kirkham, Collector, cash and allowances, as follows :—

By cash paid County tax,	$9,175 86	
By cash,	72,698 50	
By discount allowed on taxes,	3,127 64	
By abatements allowed on taxes,	2,009 32—	$87,011 32

Rate—Nine dollars and twenty cents on one thousand dollars. Poll tax, two dollars and twenty cents.

Attest, JOSEPH INGRAHAM, *City Treasurer.*

TAXES—1858—HORACE C. LEE, COLLECTOR.

Amount of State tax committed,	$8,992 00	
Amount of County tax committed,	7,785 57	
Amount of City tax committed,	66,671 26	
Amount of interest,	89 16—	$78,537 99

Received of Collector, as follows :—

By cash paid County tax,	$7,785 57	
By cash,	65,750 86	
By discount allowed on taxes,	3,420 00	
By abatements allowed on taxes,	1,581 56—	$78,537 99

Rate—Eight dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, JOSEPH INGRAHAM, *City Treasurer.*

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TAXES—1859—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$3,330 00	
Amount of County tax committed,	8,336 26	
Amount of City tax committed,	67,258 20—	$78,924 46
Received of Collector, as follows:—		
By cash paid State and City tax.	$66,139 99	
By cash paid County tax,	8,336 26	
Discount on taxes,	3,386 42	
Abatements,	1,061 79—	$78,924 46

Rate—Eight dollars and fifty cents on one thousand dollars. Poll tax, one dollar and fifty cents.

Attest, HORACE C. LEE, *City Treasurer*

TAXES—1860—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$2,775 00	
Amount of County tax committed,	8,892 01	
Amount of City tax committed,	67,393 88	
Additional taxes,	97 37—	$79,158 26
Received of Collector, as follows:—		
By cash paid State tax,	$2,775 00	
By cash paid County tax,	8,892 01	
By cash paid City tax,	62,880 91	
Discount on taxes,	3,484 90	
Abatements,	1,125 44—	$79,158 26

Rate—Eight dollars and twenty cents on one thousand dollars. Poll tax, one dollar and fifty cents.

Attest, HORACE C. LEE, *City Treasurer.*

TAXES—1861—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$3,069 00	
Amount of County tax committed,	12,477 16	
Amount of City tax committed,	68,247 59—	$83,793 75
Received of Collector, as follows:—		
By cash paid State tax,	$3,069 00	
By cash paid County tax,	12,477 16	
By cash paid City tax,	63,429 64	
Discount on taxes,	3,663 47	
Abatements,	1,154 48—	$83,793 75

Rate—Eight dollars and twenty cents on one thousand dollars. Poll tax, one dollar and fifty cents.

Attest. HENRY SMITH, *City Treasurer.*

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TAXES—1862—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$18,414 00	
Amount of County tax committed,	9,548 85	
Amount of City tax committed,	70,011 16—	$97,974 01
Received of Collector, as follows:—		
By cash paid State tax,	$18,414 00	
By cash paid County tax,	9,548 85	
By cash paid City tax,	63,543 70	
Discount on taxes,	4,334 94	
Abatements,	2,132 52—	$97,974 01

Rate—Nine dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1863—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$24,552 00	
Amount of County tax committed,	8,593 96	
Amount of City tax committed,	77,097 14	
Amount assessed for re-imbursement of bounties,	10,000 00—	$120,243 10
Received of Collector, as follows:—		
By cash paid State tax,	$24,552 00	
By cash paid County tax,	8,593 96	
By cash paid City tax,	79,623 17	
Discount on taxes,	5,375 67	
Abatements,	2,098 30—	$120,243 10

Rate—Ten dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1864—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$24,552 00	
Amount of County tax committed,	9,568 32	
Amount of City tax committed,	142,882 52—	$177,002 84
Received of Collector, as follows:—		
By cash paid State tax,	$24,552 00	
By cash paid County tax,	9,568 32	
By cash paid City tax,	130,551 60	
Discount on taxes,	7,940 65	
Abatements,	4,390 27—	$177,002 84

Rate—Fourteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

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TAXES—1865—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$66,975 00	
Amount of County tax committed,	11,428 37	
Amount of City tax committed,	143,629 17—	$222,032 54
Received of Collector, as follows:—		
By cash paid State tax,	66,975 00	
By cash paid County tax,	11,428 37	
By cash on account of City tax,	131,334 23	
Discount on taxes,	10,171 91	
Abatements,	2,123 03—	$222,032 54

Rate—Sixteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1866—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$42,750 00	
Amount of County tax committed,	11,822 45	
Amount of City tax committed,	226,741 91—	$281,314 36
Received of Collector, as follows:—		
Cash for State tax,	$42,750 00	
Cash for County tax,	11,822 45	
Cash on account of City tax,	211,659 65	
Discount on taxes,	12,966 25	
Abatements,	2,116 01—	$281,314 36

Rate—Eighteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1867—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$71,250 00	
Amount of County tax committed,	17,339 56	
Amount of City tax committed,	227,527 35—	$316,116 91
Received of Collector, as follows:—		
Cash for State tax,	$71,250 00	
Cash for County tax,	17,339 56	
Cash on account of City tax,	210,196 47	
Discount on taxes,	14,560 04	
Abatements,	2,770 84—	$316,116 91

Rate—Seventeen dollars on one thousand dollars. Poll tax, two dollars.

Attest. A. T. FOLSOM, *City Treasurer.*

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TAXES—1868—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$28,500 00	
Amount of County tax committed,	12,610 62	
Amount of City tax committed,	247,127 54—	$288,238 16
Received of Collector, as follows:—		
Cash for State tax,	$28,500 00	
Cash for County tax,	12,610 62	
Cash on account of City tax,	231,850 21	
Discount on taxes,	13,197 98	
Abatements,	2,079 35—	$288,238 16

Rate—Thirteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1869—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$35,625 00	
Amount of County tax committed,	14,383 96	
Amount of City tax committed,	339,671 92—	$389,680 88
Received of Collector, as follows:—		
Cash for State tax,	$36,625 00	
Cash for County tax,	14,383 96	
Cash on account of City tax,	318,641 98	
Discount on taxes,	17,833 71	
Abatements,	2,196 23—	$389,680 88

Rate—Sixteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1870—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$35,625 00	
Amount of County tax committed,	15,172 12	
Amount of City tax committed,	261,859 60—	$312,656 72
Received of Collector, as follows:—		
Cash for State tax,	$35,625 00	
Cash for County tax,	15,172 12	
Cash on account of City tax,	245,259 08	
Discount on taxes,	14,304 96	
Abatements,	2,295 56—	$312,656 72

Rate—Twelve dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM. *City Treasurer.*

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TAXES--1871—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$35,625 00	
Amount of County tax committed,	15,526 80	
Amount of City tax committed,	312,799 32—	$363,951 12
Received of Collector, as follows:—		
Cash for State tax,	$35,625 00	
Cash for County tax,	15,526 80	
Cash on account of City tax,	292,764 80	
Discount on taxes,	16,710 69	
Abatements,	3,323 83—	$363,951 12

Rate—Twelve dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1872—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$38,320 00	
Amount of County tax committed,	20,747 69	
Amount of City tax committed,	393,099 26—	$452,166 95
Received of Collector, as follows:—		
Cash for State tax,	$38,320 00	
Cash for County tax,	20,747 69	
Cash on account of City tax,	368,985 13	
Discount on taxes,	20,584 78	
Abatements,	3,529 35—	$452,166 95

Rate—Thirteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1873—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$43,110 00	
Amount of County tax committed,	42,131 39	
Amount of City tax committed,	529,503 73—	$614,745 12
Received of Collector, as follows:—		
Cash for State tax,	$43,110 00	
Cash for County tax,	42,131 39	
Cash on account of City tax,	496,857 73	
Discount on taxes,	26,736 54	
Abatements,	5,909 46—	$614,745 12

Rate—Sixteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

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TAXES—1874—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$38,320 00	
Amount of County tax committed,	42,131 39	
Amount of City tax committed,	568,425 45—	$648,876 84
Received of Collector, as follows:—		
By cash paid State tax,	$38,320 00	
By cash paid County tax,	42,131 39	
By cash on account of City tax,	535,296 21	
Discount on taxes,	29,125 82	
Abatements,	4,003 42—	$648,876 84

Rate—Sixteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1875—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$38,320 00	
Amount of County tax committed,	37,467 61	
Amount of City tax committed,	620,301 03	
Amount of Bank tax committed,	40,310 37—	$736,399 01
Received of Collector, as follows:—		
By cash for State tax,	$38,320 00	
By cash for County tax,	37,467 61	
By cash for Bank tax,	40,310 37	
By cash on account of City tax,	579,921 45	
Discount on taxes,	32,583 17	
Abatements,	7,796 41—	$736,399 01

Rate—Seventeen dollars and twenty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1876—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$39,654 00	
Amount of County tax committed,	40,938 55	
Amount of City tax committed,	503,720 65	
Amount of Bank tax committed,	36,584 12	
Additional poll tax committed,	160 00—	$621,007 32

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Received of Collector, as follows:—

Cash for State tax,	$39,654 00	
Cash for County tax,	40,938 55	
Cash for Bank tax,	36,534 12	
Cash on account of City tax,	498,615 64	
Property deeded to the city,	587 28	
Abatements,	4,677 73—	$621,007 32

Rate—Sixteen dollars and twenty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1877—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$33,045 00	
Amount of County tax committed,	40,938 55	
Amount of City tax committed,	340,216 54	
Amount of Bank tax committed,	28,840 49	
Additional taxes,	82 30—	$443,122 88
Received of Collector, as follows:—		
Amount of State tax,	33,045 00	
Amount of County tax,	40,938 55	
On account of Bank tax,	28,834 62	
On account of City tax,	336,429 04	
Property deeded to the city,	48 43	
Abatements,	3,768 74	
Allowed amount assessed on property deeded to the city,	58 50—	$443,122 88

Rate—Thirteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1878—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$22,030 00	
Amount of County tax committed,	40,938 55	
Amount of City tax committed,	275,447 38	
Amount of Bank tax committed,	22,658 06	
Additional taxes,	85 85—	$361,159 84

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Received of Collector, as follows:—

Amount of State tax,	$22,080 00	
Amount of County tax,	40,938 55	
Amount of Bank tax,	22,658 06	
On account of City tax,	273,493 98	
Abatements,	2,011 75	
Tax on property deeded to the City,	27 50—	$361,159 84

Rate—Eleven dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1879—FRANCIS NORTON, COLLECTOR.

Amount of City tax committed,	$11,015 00	
Amount of County tax committed,	35,053 64	
Amount of Bank tax committed,	24,471 90	
Amount of City tax committed,	322,687 25	
Additional taxes,	206 80—	$393,434 59

Received of Collector, as follows:—

Amount of State tax,	$11,015 00	
Amount of County tax,	35,053 64	
Amount of Bank tax,	24,471 90	
On account of City tax,	320,912 99	
Abatements,	1,981 06—	$393,434 59

Rate—Twelve dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1880—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$33,045 00	
Amount of County tax committed,	39,403 21	
Amount of Bank tax committed,	32,586 12	
Amount of City tax committed,	349,164 57	
Additional taxes,	222 50—	$454,421 40

Received of Collector, as follows:—

Amount of State tax,	$33,045 00	
Amount of County tax,	39,403 21	
Amount of Bank tax,	32,586 12	
On account of City tax,	347,583 21	
Abatements,	1,803 86—	$454,421 40

Rate—Thirteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

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TAXES—1881—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$33,045 00		
Amount of County tax committed,	39,403 21		
Amount of Bank tax committed,	33,635 12		
Amount of City tax committed,	354,234 92		
Additional taxes,	45 50—		$460,363 75
Received of Collector, as follows:—			
Amount of State tax,	$33,045 00		
Amount of County tax,	39,403 21		
Amount of Bank tax,	33,635 12		
On account of City tax,	351,854 12		
Abatements,	2,426 30—		$460,363 75

Rate—Twelve dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1882—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$44,060 00		
Amount of County tax committed,	39,403 21		
Amount of Bank tax committed,	34,105 64		
Amount of City tax committed,	363,421 26		
Additional taxes,	8 50—		$480,998 61
Received of Collector, as follows:—			
Amount of State tax,	$44,060 00		
Amount of County tax,	39,403 21		
Amount of Bank tax,	34,105 64		
On account of City tax,	360,556 41		
Abatements,	2,873 35—		$480,998 61

Rate—Twelve dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1883—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$31,425 00		
Amount of County tax committed,	38,245 42		
Amount of Bank tax committed,	36,619 51		
Amount of City tax committed,	385,793 81		
Additional taxes,	92 50—		$492,176 24

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Received of Collector, as follows:—

Amount of State tax,	$31,425 00	
Amount of County tax,	38,245 42	
Amount of Bank tax,	36,619 51	
On account of City tax,	383,823 75	
Abatements,	2,162 56—	$492,176 24

Rate—Twelve dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1884—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$41,900 00	
Amount of County tax committed,	38,245 42	
Amount of Bank tax committed,	41,894 21	
Amount of City tax committed,	431,005 50	
Additional taxes,	4 00—	$553,049 13

Received of Collector, as follows:—

Amount of State tax,	$41,900 00	
Amount of County tax,	38,245 42	
Amount of Bank tax,	41,894 21	
On account of City tax,	427,652 29	
Abatements,	3,357 21—	$553,049 13

Rate—Fourteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1885—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$31,425 00	
Amount of County tax committed,	38,245 42	
Amount of Bank tax, committed	38,162 97	
Amount of City tax, committed,	409,445 89	
Additional taxes,	66 00—	$517,345 28

Received of Collector, as follows:—

Amount of State tax,	$31,425 00	
Amount of County tax,	38,245 42	
Amount of Bank tax,	38,162 97	
On account of City tax,	406,792 80	
Property deeded to the city,	28 16	
Abatements,	2,691 33—	$517,345 28

Rate—Twelve dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

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TAXES—1886—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$31,695 00	
Amount of County tax committed,	44,158 00	
Amount of Bank tax committed,	38,668 51	
Amount of City tax committed,	415,896 19	
Additional taxes,	17 52—	$530,435 22
Received of Collector, as follows:—		
State tax,	$31,695 00	
County tax,	44,158 00	
Bank tax,	38,668 51	
On account of City tax,	413,144 15	
Abatements,	2,769 56—	$530,435 22

Rate—Twelve dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, A. T. FOLSOM, *City Treasurer.*

TAXES—1887—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$47,542 50	
Amount of County tax committed,	44,158 00	
Amount of Bank tax committed,	44,247 57	
Amount of City tax committed,	453,960 76	
Additional taxes,	128 26—	$590,037 09
Received of Collector, as follows:—		
State tax,	$47,542 50	
County tax,	44,158 00	
Bank tax,	44,247 57	
On account of City tax,	450,932 44	
Abatements,	3,156 58—	$590,037 09

Rate—Thirteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1888—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$47,542 50	
Amount of County tax committed,	44,158 00	
Amount of Bank tax committed,	43,584 53	
Amount of City tax committed,	473,472 26	
Additional taxes,	227 16	
Additional taxes committed in 1889,	16 32—	$609,000 77

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Received of Collector, as follows:—

State tax,	$47,542 50	
County tax,	44,158 00	
Bank tax,	43,584 53	
On account of City tax,	469,724 78	
Abatements,	3,990 96—	$609,000 77

Rate—Thirteen dollars and sixty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1889—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$41,220 00	
Amount of County tax committed,	44,028 53	
Amount of Bank tax committed,	40,448 78	
Amount of City tax committed,	485,993 44	
Additional taxes,	140 60—	$611,831 35

Received of Collector, as follows:—

State tax,	$41,220 00	
County tax,	44,028 53	
Bank tax,	40,448 78	
On account of City tax,	481,275 80	
Abatements,	4,858 24—	$611,831 35

Rate—Thirteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1890—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$36,067 50	
Amount of County tax committed,	45,418 77	
Amount of Bank tax committed,	37,692 73	
Amount of City tax committed,	495,243 78	
Additional taxes,	276 76—	$614,699 54

Received of Collector, as follows:—

State tax,	$36,067 50	
County tax,	45,418 77	
Bank tax,	37,692 73	
On account of City tax,	490,351 60	
Abatements,	4,668 94—	$614,699 54

Rate—Twelve dollars and forty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

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TAXES—1891—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$30,915 00	
Amount of County tax committed,	45,418 77	
Amount of Bank tax committed,	36,646 82	
Amount of City tax committed,	553,851 16—	$666,831 75

Received of Collector, as follows:—

State tax,	$30,915 00	
County tax,	45,418 77	
Bank tax,	36,646 82	
On account of City tax,	548,216 54	
Abatements,	5,634 62—	$666,831 75

Rate—Twelve dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1892—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$38,675 00	
Amount of County tax committed,	53,033 00	
Amount of Bank tax committed,	38,818 82	
Amount of City tax committed,	596,452 83—	$726,979 65

Received of Collector, as follows:—

State tax,	$38,675 00	
County tax,	53,033 00	
Bank tax,	38,818 82	
On account of City tax,	569,838 41	
Abatements,	6,614 42—	$726,979 65

Rate—Thirteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1893—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$55,250 00	
Amount of County tax committed,	62,675 00	
Amount of Bank tax committed,	38,466 70	
Amount of City tax committed,	618,271 32—	$774,663 02

Received of Collector, as follows:—

State tax,	$55,250 00	
County tax,	62,675 00	
Bank tax,	38,466 70	
City tax,	611,552 58	
Abatements,	6,718 74—	$774,663 02

Rate—Twelve dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

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TAXES—1894—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$44,200 00	
Amount of County tax committed,	62,675 00	
Amount of Bank tax committed,	35,209 74	
Amount of City tax committed,	595,401 96	
Amount of Military Armory tax committed,	2,303 70	
Amount of Armory Street Crossing tax committed,	2,194 04	$741,984 44

Received of Collector as follows: —

State tax,	$44,200 00	
County tax,	62,675 00	
Bank tax,	35,209 74	
City tax,	589,804 74	
Military Armory tax,	2,303 70	
Armory Street Crossing tax,	2,194 04	
Abatements,	5,597 22	$741,984 44

Rate—Twelve dollars on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1895—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$35,205 00	
Amount of County tax committed,	66,133 41	
Amount of Bank tax committed,	37,037 29	
Amount of City tax committed,	643,830 21	
Amount of Military Armory tax committed,	6,153 70	$788,359 61

Received of Collector as follows: —

State tax,	$35,205 00	
County tax,	66,133 41	
Bank tax,	37,037 29	
City tax,	637,697 06	
Military Armory tax,	6,153 70	
Abatements,	6,133 15	$788,359 61

Rate—Twelve dollars and twenty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1896—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$41,072 50	
Amount of County tax committed,	80,829 55	
Amount of Bank tax committed,	37,071 98	
Amount of City tax committed,	691,449 98	
Amount of Military Armory tax committed,	5,603 70	$856,027 71

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Received of Collector, as follows:—

State tax,	$41,072 50	
County tax,	80,829 55	
Bank tax,	37,071 98	
On account of City tax,	683,871 05	
Military Armory tax,	5,603 70	
Abatements,	7,578 93—	$856,027 71

Rate—Twelve dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1897—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$41,072 50	
Amount of County tax committed,	80,535 73	
Amount of Bank tax committed,	37,144 65	
Amount of City tax committed,	749,880 35	
Amount of Military Armory tax committed,	5,603 70	
Amount of Pasco Road Crossing tax committed,	1,119 53—	$915,356 46

Received of Collector, as follows:—

State tax,	$41,072 50	
County tax,	80,535 73	
Bank tax,	37,144 65	
On account of City tax,	739,002 40	
Military Armory tax,	5,603 70	
Pasco Road Crossing tax,	1,119 53	
Abatements,	10,877 95—	$915,356 46

Rate—Thirteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1898—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$37,065 00	
Amount of County tax committed,	74,492 50	
Amount of Bank tax committed,	39,861 94	
Amount of City tax committed,	824,605 39	
Amount of Military Armory tax committed,	5,603 70—	$981,628 53

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Received of Collector, as follows:—

State tax,	$37,065 00	
County tax,	74,492 50	
Bank tax,	39,861 94	
On account of City tax,	816,731 39	
Military Armory tax,	5,603 70	
Abatements,	7,874 00—	$981,628 53

Rate—Thirteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1899—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$37,065 00	
Amount of County tax committed,	71,552 15	
Amount of Bank tax committed,	38,572 49	
Amount of City tax committed,	873,003 21	
Amount of Military Armory tax committed,	5,603 70	
Amount Excise tax Springfield Street Railway committed,	8,312 06—	$1,034,108 61

Received of Collector, as follows:—

State tax,	$37,065 00	
County tax,	71,552 15	
Bank tax,	38,572 49	
On account of City tax,	862,659 73	
Military Armory tax,	5,603 70	
Excise tax Springfield Street Railway,	8,312 06	
Abatements,	10,343 48—	$1,034,108 61

Rate—Thirteen dollars and sixty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1900—FRANCIS NORTON, COLLECTOR.

Amount of State tax committed,	$37,065 00	
Amount of County tax committed,	70,856 77	
Amount of Bank tax committed,	39,652 49	
Amount of City tax committed,	923,295 17	
Amount of Military Armory tax committed,	5,603 70	
Amount of Excise Tax Springfield Street Railway,	8,596 72—	$1,085,069 85

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Received of Collector, as follows: —

State tax,	$37,065 00	
County tax,	70,856 77	
Bank tax,	39,652 49	
On account of City tax,	912,332 16	
Military Armory tax,	5,603 70	
Excise tax Springfield Street Railway,	8,596 72	
Abatements,	10,963 01	— $1,085,069 85

Rate—Thirteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1901—WILLIAM H. C. AUGUR, COLLECTOR.

Amount of State tax committed,	$43,365 00	
Amount of County tax committed,	72,385 61	
Amount of Bank tax committed,	40,569 51	
Amount of City tax committed,	956,391 03	
Amount of Military Armory tax committed,	5,603 70	
Amount of Excise tax Springfield Street Railway committed,	9,349 30	— $1,127,664 15

Received of Collector, as follows: —

State tax,	$43,365 00	
County tax,	72,385 61	
Bank tax,	40,569 51	
On account of City tax,	944,902 66	
Military Armory tax,	5,603 70	
Excise tax Springfield Street Railway,	9,349 30	
Abatements,	11,488 37	— $1,127,664 15

Rate—Fourteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, E. T. TIFFT, *City Treasurer.*

TAXES—1902—WILLIAM H. C. AUGUR, COLLECTOR.

Amount of State tax committed,	$37,170 00	
Amount of County tax committed,	72,385 61	
Amount of Bank tax committed,	37,593 93	
Amount of City tax committed,	1,008,776 42	
Amount of Military Armory tax committed,	5,603 70	
Amount of Excise tax Springfield Street Railway committed,	10,086 82	— $1,171,616 48

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Received of Collector, as follows: —

State tax,	$37,170 00	
County tax,	72,385 61	
Bank tax,	37,593 93	
On account of City tax,	998,837 34	
Military Armory tax,	5,603 70	
Excise tax Springfield Street Railway,	10,086 82	
Abatements,	9,939 08—	$1,171,616 48

Rate — Fourteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1903—WILLIAM H. C. AUGUR, COLLECTOR.

Amount of State tax committed,	$61,950 00	
Amount of County tax committed,	72,385 61	
Amount of Bank tax committed,	37,031 75	
Amount of City tax committed,	1,027,475 06	
Amount of Military Armory tax committed,	5,603 70	
Amount of Excise tax Springfield Street Railway committed,	10,961 60—	$1,215,407 72

Received of Collector, as follows: —

State tax,	$61,950 00	
County tax,	72,385 61	
Bank tax,	37,031 75	
On account of City tax,	1,018,133 58	
Military Armory tax,	5,603 70	
Excise tax Springfield Street Railway,	10,961 60	
Abatements,	9,341 48—	$1,215,407 72

Rate—Fourteen dollars and sixty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1904—WILLIAM H. C. AUGUR, COLLECTOR.

Amount of State tax committed,	$61,850 00	
Amount of County tax committed,	80,546 62	
Amount of Bank tax committed,	36,153 43	
Amount of City tax committed,	1,047,146 48	
Amount of Military Armory tax committed,	5,677 17	
Amount of Excise tax Springfield Street Railway committed,	11,353 26—	$1,242,726 96

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Received of Collector, as follows:—

State tax,	$61,850 00	
County tax,	80,546 62	
Bank tax,	36,153 43	
On account of City tax,	1,038,340 29	
Military Armory tax,	5,677 17	
Excise tax Springfield Street Railway,	11,353 26	
Abatements,	8,806 19—	$1,242,726 96

Rate—Fourteen dollars and sixty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1905—WILLIAM H. C. AUGUR, COLLECTOR.

Amount of State tax committed,	$98,960 00	
Amount of County tax committed,	74,932 77	
Amount of Bank tax committed,	39,209 52	
Amount of City tax committed,	1,109,312 49	
Amount of Military Armory tax committed,	6,728 38	
Amount of Grade Crossing tax committed,	1,177 05	
Amount of Excise tax Springfield Street Railway committed,	12,132 26—	$1,342,452 47

Received of Collector as follows:—

State tax,	$98,960 00	
County tax,	74,932 77	
Bank tax,	39,209 52	
On account of City tax,	1,096,511 34	
Military Armory tax,	6,728 38	
Grade Crossing tax,	1,177 05	
Excise tax Springfield Street Railway,	12,132 26	
Abatements,	12,801 15—	$1,342,452 47

Rate—Fifteen dollars and forty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1906—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$86,590 00	
Amount of County tax committed,	89,968 08	
Amount of Bank tax committed,	26,876 53	
Amount carried forward,	$203,434 61	

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Amount brought forward,	$208,434 61		
Amount of City tax committed,	1,157,038 64		
Amount of Military Armory tax committed,	6,611 06		
Amount of Grade Crossing tax committed,	1,111 66		
Amount of Excise tax Springfield Street Railway committed,	12,856 06		
Amount of Special Census tax committed,	820 78	—	$1,381,872 81
Received of Collector as follows: —			
State tax,	$86,590 00		
County tax,	89,968 08		
Bank tax,	26,876 53		
On account of City tax,	1,145,794 34		
Military Armory tax,	6,611 06		
Grade Crossing tax,	1,111 66		
Excise tax Springfield Street Railway,	12,856 06		
Special Census,	820 78		
Abatements,	11,244 30	—	$1,381,872 81

Rate—Fifteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1907—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$103,280 00		
Amount of County tax committed,	92,566 11		
Amount of Bank tax committed,	26,073 69		
Amount of City tax committed,	1,230,789 52		
Amount of Military Armory tax committed,	6,430 43		
Amount of Excise tax Springfield Street Railway committed,	13,646 75	—	$1,472,786 50
Received of Collector as follows: —			
State tax,	$103,280 00		
County tax,	92,566 11		
Bank tax,	26,073 69		
On account of City tax,	1,220,963 31		
Military Armory tax,	6,430 43		
Excise tax Springfield Street Railway,	13,646 75		
Abatements,	9,826 21	—	$1,472,786 25

Rate—Fifteen dollars on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

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TAXES—1908—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$142,010	00	
Amount of County tax committed,	92,465	60	
Amount of Bank tax committed,	26,346	46	
Amount of City tax committed,	1,326,257	02	
Amount of Military Armory tax committed,	922	50	
Amount of Excise tax Springfield Street Railway committed,	13,608	62	
Amount for abating nuisance Kibbe Hollow tax committed,	785	76—	$1,602,395 96
Received of Collector as follows:—			
State tax,	$142,010	00	
County tax,	92,465	60	
Bank tax,	26,346	46	
On account of City tax,	1,313,145	20	
Military Armory tax,	922	50	
Excise tax Springfield Street Railway,	13,608	62	
Abatements,	13,463	28	
On account of abating nuisance Kibbe Hollow,	434	35—	$1,602,395 96

Rate—Fifteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1909—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$116,190	00	
Amount of County tax committed,	92,465	60	
Amount of Bank tax committed,	25,127	59	
Amount of City tax committed,	1,442,009	18	
Amount of Excise tax Springfield Street Railway committed,	14,214	26	
Amount for abating nuisance Kibbe Hollow tax committed,	785	76—	$1,690,792 39
Received of Collector as follows:—			
State tax,	$116,190	00	
County tax,	92,465	60	
Bank tax,	25,127	59	
On account of City tax,	1,426,950	22	
Amount carried forward,	$1,660,733	91	

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Amount brought forward,	$1,660,733	41	
Excise tax Springfield Street Railway,	14,214	26	
Abatements,	15,349	67	
Abatement on account of abating nuisance Kibbe Hollow,	495	05	— $1,690,792 89

Rate—Fourteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

TAXES—1910—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$158,845	00	
Amount of County tax committed,	95,413	62	
Amount of Bank tax committed,	29,595	64	
Amount of City tax committed,	1,685,106	18	
Amount of Excise tax Springfield Street Railway committed,	14,671	37	— $1,988,131 76

Received of Collector as follows:—

State tax,	$158,845	00	
County tax,	95,413	62	
Bank tax,	29,595	64	
On account of City tax,	1,641,369	94	
Excise tax Springfield Street Railway,	14,671	37	
Abatements,	18,356	69	
Uncollected taxes,	25,379	50	— $1,983,131 76

Rate—Fifteen dollars and eighty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT *City Treasurer.*

TAXES—1911—CHARLES A. FRAZER, COLLECTOR.

Amount of State tax committed,	$158,845	00	
Amount of County tax committed,	107,858	85	
Amount of Bank tax committed,	33,125	83	
Amount of City tax committed,	1,898,555	21	
Amount of Excise tax Springfield Street Railway committed,	13,441	88	— $2,211,326 77

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Received of Collector as follows:—

State tax,	$158,345 00	
County tax,	107,858 85	
Bank tax,	38,125 83	
On account of City tax,	1,495,663 93	
Excise tax Springfield Street Railway,	13,441 88	
Abatements,	7,047 61	
Uncollected taxes,	395,843 67—	$2,211,326 77

Rate—Sixteen dollars and fifty cents on one thousand dollars. Poll tax, two dollars.

Attest, ELIPHALET T. TIFFT, *City Treasurer.*

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ASSESSORS' VALUATION OF PROPERTY.

1852—Total valuation,		$5,180,210 00
1853—Total valuation,		5,509,660 00
1854—Total valuation,		7,762,250 00
1855—Total valuation,		8,409,870 00
1856—Total valuation,		8,284,060 00
1857—Total valuation,		8,558,720 00
1858—Real estate,	$5,702,040 00	
Personal estate,	2,679,100 00	8,381,140 00
1859—Real estate,	5,794,590 00	
Personal estate,	2,845,640 00	8,640,230 00
1860—Real estate,	5,962,480 00	
Personal estate,	2,955,800 00	8,918,280 00
1861—Real estate,	6,417,660 00	
Personal estate,	3,067,920 00	9,485,580 00
1862—Real estate,	6,719,500 00	
Personal estate,	3,039,390 00	9,758,890 00
1863—Real estate,	7,211,320 00	
Personal estate,	3,744,790 00	10,956,110 00
1864—Real estate,	8,536,490 00	
Personal estate,	2,871,430 00	11,407,920 00
1865—Real estate,	9,007,850 00	
Personal estate,	3,784,910 00	12,792,760 00
1866—Real estate,	10,241,540 00	
Personal estate,	4,755,480 00	14,997,020 00
1867—Real estate,	12,758,420 00	
Personal estate,	5,110,810 00	17,869,230 00
1868—Real estate,	15,125,520 00	
Personal estate,	5,322,640 00	20,448,160 00
1869—Real estate,	17,665,610 00	
Personal estate,	5,901,570 00	23,567,180 00
1870—Real estate,	18,443,990 00	
Personal estate,	6,070,070 00	24,514,060 00
1871—Real estate,	20,962,100 00	
Personal estate,	6,589,870 00	27,551,970 00

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1872—Real estate,	$26,098,920 00	
Personal estate,	7,512,230 00	$33,611,150 00
1873—Real estate,	29,380,520 00	
Personal estate,	8,060,300 00	37,440,820 00
1874—Real estate,	30,489,850 00	
Personal estate,	7,846,928 00	38,336,778 00
1875—Real estate,	31,125,660 00	
Personal estate,	8,398,912 40	39,524,572 40
1876—Real estate,	27,647,560 00	
Personal estate,	7,461,896 86	35,109,456 86
1877—Real estate,	23,737,000 00	
Personal estate,	6,955,776 66	30,692,776 66
1878—Real estate,	22,746,330 00	
Personal estate,	6,637,845 72	29,384,175 72
1879—Real estate,	22,211,230 00	
Personal estate,	7,230,094 00	29,441,324 00
1880—Real estate,	22,856,020 00	
Personal estate,	8,292,655 00	31,148,675 00
1881—Real estate,	23,795,920 00	
Personal estate,	8,935,850 00	32,731,770 00
1882—Real estate,	25,084,420 00	
Personal estate,	9,198,258 00	34,282,678 00
1883—Real estate,	25,676,800 00	
Personal estate,	9,260,459 00	34,937,259 00
1884—Real estate,	26,301,150 00	
Personal estate,	8,792,666 00	35,093,816 00
1885—Real estate,	26,969,800 00	
Personal estate,	8,865,928 00	35,835,728 00
1886—Real estate,	27,638,760 00	
Personal estate,	9,143,442 00	36,782,202 00
1887—Real estate,	28,566,280 00	
Personal estate,	9,416,384 17	37,982,664 17
1888—Real estate,	30,323,140 00	
Personal estate,	9,540,115 14	39,863,255 14
1889—Real estate,	32,000,680 00	
Personal estate,	10,072,895 00	42,073,575 00
1890—Real estate,	33,795,860 00	
Personal estate,	10,697,773 00	44,493,633 00
1891—Real estate,	37,219,490 00	
Personal estate,	11,110,144 00	48,329,634 00

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1892—Real estate,	$39,444,580 00	
Personal estate,	11,336,407 00	$50,780,987 00
1893—Real estate,	42,975,820 00	
Personal estate,	12,264,099 00	55,239,919 00
1894—Real estate,	44,083,900 00	
Personal estate,	12,365,525 00	56,449,425 00
1895—Real estate,	46,063,460 00	
Personal estate,	12,969,681 00	59,033,141 00
1896—Real estate,	48,344,280 00	
Personal estate,	13,071,811 00	61,416,091 00
1897—Real estate,	50,344,460 00	
Personal estate,	14,553,919 00	64,898,379 00
1898—Real estate,	52,022,570 00	
Personal estate,	13,677,143 00	65,699,713 00
1899—Real estate,	53,400,770 00	
Personal estate,	16,469,077 00	69,869,847 00
1900—Real estate,	55,676,320 00	
Personal estate,	16,682,161 00	72,358,481 00
1901—Real estate,	57,394,710 00	
Personal estate,	16,944,217 00	74,338,927 00
1902—Real estate,	58,411,160 00	
Personal estate,	16,424,905 40	74,836,065 40
1903—Real estate,	60,787,130 00	
Personal estate,	16,420,768 80	77,207,898 80
1904—Real estate,	62,145,950 00	
Personal estate,	16,722,107 80	78,868,057 80
1905—Real estate,	63,273,330 00	
Personal estate,	17,631,146 80	80,904,476 80
1906—Real estate,	68,239,990 00	
Personal estate,	18,265,191 00	86,505,181 00
1907—Real estate,	73,319,860 00	
Personal estate,	19,058,764 00	92,378,624 00
1908—Real estate,	76,965,520 00	
Personal estate,	20,132,788 00	97,098,308 00
1909—Real estate,	85,403,490 00	
Personal estate,	22,472,290 00	107,875,780 00
1910—Real estate,	94,984,660 00	
Personal estate,	24,097,118 00	119,081,778 00
1911—Real estate,	102,393,230 00	
Personal estate,	25,659,804 00	128,053,034 00

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CITY OFFICERS.

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CITY OFFICERS.

CITY OFFICERS FOR 1852.

MAYOR—CALEB RICE.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Eliphalet Trask; Ward Three, E. D. Beach; Ward Four, George Dwight; Ward Five, Albert Morgan; Ward Six, Charles G. Rice; Ward Seven, Oliver B. Bannon; Ward Eight, F. A. Barton.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, Henry Morris; Ward One, J. B. M. Stebbins, Eleazer Ripley, John V. Jones; Ward Two, W. C. Sturtevant, Francis Bates, Henry Fuller, Jr.; Ward Three, Charles Merriam, Willis Phelps, Cicero Simons; Ward Four, Henry Morris, Alexander H. Avery, Benjamin F. Warner; Ward Five, William Hitchcock, Hiram Q. Sanderson, Nathaniel Cate; Ward Six, Henry Adams; Ward Seven, Ezra Kimberly; Ward Eight, Rodney Holt.

CLERK—Alanson Hawley.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1853.

MAYOR—CALEB RICE.

ALDERMEN—Ward One, John B. Stebbins; Ward Two, Eliphalet Trask; Ward Three, Willis Phelps; Ward Four, Henry Vose; Ward Five, Titus Amadon; Ward Six, Drayton Perkins; Ward Seven, Joseph N. Sollace; Ward Eight, Harvey Foster.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, Henry Morris (resigned May 16), William Stowe; Ward One, Daniel Hitchcock, William Pynchon, Addison Day; Ward Two, Joseph C. Pynchon, Orrin Baker, E. W. Bond; Ward Three, Lombard Dale, T. M. Walker, William Stowe; Ward Four, Henry Morris, Alexander H. Avery, Edmund Palmer; Ward Five, Nathanie Cate, William Dickinson, Daniel Collins; Ward Six, Henry Adams; War Seven, Ezra Kimberly; Ward Eight, William S. Barker.

CLERK—Alanson Hawley (resigned March 7), Samuel O. Gay.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1854.

MAYOR—PHILOS B. TYLER.

ALDERMEN—Ward One, Wilson Eddy; Ward Two, Eliphalet Trask; Ward Three, Elkanah Barton; Ward Four, William L. Washburn; Ward Five, Edward F. Moseley; Ward Six, Roderick Lombard; Ward Seven, Joseph Lombard; Ward Eight, Rodney Holt.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, Samuel S. Day; Ward One, Asa Clark, Samuel S. Day, Thomas W. Wason; Ward Two, George H. Roberts, Henry A. Robinson, Roderick Ashley; Ward Three, Philo F. Wilcox, Lombard Dale, Frederick H. Harris; Ward Four, Daniel L. Harris, Tilly Haynes, Joseph B. Hopkins; Ward Five, Daniel Collins, G. W. Harrison, A. H. Clark; Ward Six, Edwin S. Hall; Ward Seven, Harris B. Johnson; Ward Eight, Horace Pease.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

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CITY OFFICERS FOR 1855.

MAYOR—ELIPHALET TRASK.

ALDERMEN—Ward One, James M. Blanchard; Ward Two, W. C. Sturtevant; Ward Three, David Smith; Ward Four, Daniel Reynolds; Ward Five, William E. Montague; Ward Six, Henry Adams; Ward Seven, James P. Chapman; Ward Eight, Harvey Foster.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, John M. Stebbins; Ward One, E. B. Haskell, John M. Stebbins, Stephen Morse; Ward Two, O. W. Wilcox, John Hooker, 3d, D. H. Brigham; Ward Three, Francis S. Graves, Rufus Elmer, E. W. Dickinson; Ward Four, Abel B. Howe, John W. Hunt, Jeremiah R. Cadwell; Ward Five, Nathaniel Howard, S. S. Holmes, E. F. Moseley; Ward Six, J. G. Carron; Ward Seven, Luther S. Lewis; Ward Eight, Samuel Webber.

CLERK—Thomas Chubbuck.

CITY CLERK AND TREASURER Joseph Ingraham.

CITY OFFICERS FOR 1856.

MAYOR—ANSEL PHELPS, JR.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Henry Fuller, Jr.; Ward Three, Edmund Freeman; Ward Four, Stephen C. Bemis; Ward Five, Thomas H. Allen; Ward Six, Henry Alexander, Jr.; Ward Seven, Henry Reynolds; Ward Eight, Samuel Webber.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, James Kirkham; Ward One, Charles O. Russell, Chauncey L. Covell, Hervey Hills; Ward Two, O. W. Wilcox, Henry A. Chapin, Dexter H. Brigham; Ward Three, Dr. Nathan Adams, Charles L. Shaw, George Whitney; Ward Four, James Kirkham, George Walker, John W. Hunt; Ward Five, Otis A. Seamans, E. F. Moseley, Nelson Tyler; Ward Six, Elbridge Barton; Ward Seven, William Smith; Ward Eight, Milton Foster.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1857.

MAYOR—ANSEL PHELPS, JR.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Henry Fuller, Jr.; Ward Three, Henry Alexander, Jr.; Ward Four, Stephen C. Bemis; Ward Five, Joseph Hannis; Ward Six, James Warner; Ward Seven, Henry Pomroy; Ward Eight, Samuel Webber, Jr.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, George Walker; Ward One, Charles O. Russell, Chauncey L. Covell, James Stebbins; Ward Two, Erastus Hayes, Lyman King, Francis B. Bacon; Ward Three, Marvin Lincoln, Henry Avery, John R. Hixon; Ward Four, George Walker, Samuel Leonard, William Birnie; Ward Five, Charles Woodman, Luther Upton, George A. Otis; Ward Six, Elbridge Barton; Ward Seven, William Smith; Ward Eight, George A. Cooley.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

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CITY OFFICERS FOR 1858.

MAYOR—ANSEL PHELPS, JR.

ALDERMEN—Ward One, Samuel S. Day; Ward Two, Henry Fuller, Jr.; Ward Three, Henry Alexander, Jr.; Ward Four, Stephen C. Bemis; Ward Five, Joseph Hannis; Ward Six, James Warner; Ward Seven, Henry Pomroy; Ward Eight, Samuel Webber, Jr. (resigned), E. A. Fuller.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, John R. Hixon; Ward One, Wilson Eddy, William Pynchon, William L. Smith; Ward Two, Randolph E. Ladd, Ambrose N. Merrick, Charles B. Trask; Ward Three, John R. Hixon, Henry A. Chapin, Gurdon Bill; Ward Four, Samuel Leonard, John W. Hunt, R. G. Shumway; Ward Five, Charles Woodman, George Swetland, John Brooks; Ward Six, Elbridge Barton; Ward Seven, Joseph Wheelock, Jr.; Ward Eight, Erastus King.

CLERK—Charles O. Chapin.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICERS FOR 1859.

MAYOR—WILLIAM B. CALHOUN.

ALDERMEN—Ward One, Chauncey L. Covell; Ward Two, Roger S. Moore; Ward Three, Edmund Freeman; Ward Four, Daniel L. Harris; Ward Five, William Hitchcock; Ward Six, J. G. Capron; Ward Seven, Horace Smith; Ward Eight, George W. Holt.

CLERK—Joseph Ingraham.

COMMON COUNCILMEN—President, A. N. Merrick (resigned in Ma[illegible]. Samuel Leonard; Ward One, Joshua M. Harrington, Justin M. Coole John V. Jones; Ward Two, George H. Roberts, Lewis H. Taylor, Gurdo[illegible] C. Judson; Ward Three, A. N. Merrick, Daniel Gay, Hosea C. Lombard; Ward Four, Samuel Leonard, Alfred Rowe, Reuben T. Safford; Ward Five, Theodore Bishop, Walter Maynard, Walter North; Ward Six, Isaac D. Gibbons; Ward Seven, Ransley Hall; Ward Eight, Warren L. Shaw.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Joseph Ingraham.

CITY OFFICFRS FOR 1860.

MAYOR—DANIEL L. HARRIS.

ALDEDMEN—Ward One, Edmund B. Haskell; Ward Two, Erastus Hayes; Ward Three, Franklin Chamberlain; Ward Four, John W. Hunt; Ward Five, William Hitchcock; Ward Six, John G. Capron; Ward Seven, William Foster; Ward Eight, George W. Holt.

CLERK—Horace C. Lee.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Joshua M. Harrington, H. S. Noyes, J. H. Demond; Ward Two, Lewis H. Taylor, George R. Townsley, Charles A. Winchester; Ward Three, William L. Wilcox, John Hamilton, Clark W. Bryan; Ward Four, N. A. Leonard, William Birnie, Alfred Rowe; Ward Five, William Higley, A. F. Strong, Charles Woodman; Ward Six, Robert Crossett; Ward Seven, Orrin Lombard; Ward Eight, Andrew J. Plumer.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Horace C. Lee.

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CITY OFFICERS FOR 1861.

MAYOR—STEPHEN C. BEMIS.

ALDERMEN—Ward One, Henry Gray; Ward Two, Ephriam W. Bond; Ward Three, H. N. Case; Ward Four, Nathaniel Howard; Ward Five, Charles Woodman; Ward Six, Amos Call; Ward Seven, William Smith; Ward Eight, A. J. Plumer.

CLERK—Horace C. Lee.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, H. J. Chapin, J. M. Cooley, J. H. Demond; Ward Two, Lewis H. Taylor, D. H. Brigham, F. B. Bacon; Ward Three, William L. Wilcox, John Hamilton, James M. Skiff; Ward Four, N. A. Leonard, John W. Bliss, Alfred Rowe; Ward Five, William Higley, Otis A. Seamans, A. W. Allen; Ward Six, Aaron C. Barton; Ward Seven, Henry Reynolds; Ward Eight, H. E. Moseley.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Horace C. Lee.

CITY OFFICERS FOR 1862.

MAYOR—STEPHEN C. BEMIS.

ALDERMEN—Ward One, Henry Gray; Ward Two, E. W. Bond; Ward Three, H. N. Case; Ward Four, T. W. Wason; Ward Five, Horace Kibbe; Ward Six, Horace Smith; Ward Seven, William Smith; Ward Eight, H. S. Evans.

CLERK—S. B. Spooner, Jr.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Horace J. Chapin, L. O. Hanson, L. J. Powers; Ward Two, Sylvester Day, Tim Henry, Eli H. Patch; Ward Three, James M. Skiff, J. E. Taylor, A. F. Jennings; Ward Four, N. A. Leonard, Alfred Rowe, T. M. Walker; Ward Five, P. V. B. Havens, George K. Jacobs, George K. Charter; Ward Six, Aaron C. Barton; Ward Seven, Ezekiel Keith; Ward Eight, H. E. Moseley.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Samuel B. Spooner (resigned September 30), A. T. Folsom.

CITY OFFICERS FOR 1863.

MAYOR—HENRY ALEXANDER, JR.

ALDERMEN—Ward One, Justin M. Cooley; Ward Two, William Patton; Ward Three, William K. Baker; Ward Four, Daniel L. Harris; Ward Five, William Bodurtha; Ward Six, Horace Smith; Ward Seven, Virgil Perkins; Ward Eight, Andrew J. Plumer.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, N. W. Talcott, George S. Haskell, Luther Clark; Ward Two, O. H. Greenleaf, G. R. Townsley, John West; Ward Three, Aaron G. Lord, James M. Skiff, Francis S. Graves; Ward Four, N. A. Leonard, A. L. Soule, Henry S. Lee; Ward Five, Cheney Bigelow, George K. Charter (resigned), Charles Phelps, Orlando Chapin (resigned), William Collins; Ward Six, J. G. Chase; Ward Seven, C. P. L. Warner; Ward Eight, Hiram Warner.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1864.

MAYOR—HENRY ALEXANDER, JR.

ALDERMEN—Ward One, Norman W. Talcott; Ward Two, William Patton; Ward Three, Albert D. Briggs; Ward Four, Frederick H. Harris; Ward Five, Charles Barrows; Ward Six, Warren H. Wilkinson; Ward Seven, Virgil Perkins; Ward Eight, Harvey E. Moseley.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, N. A. Leonard; Ward One, Henry S. Hyde, John Mulligan, Charles H. Allen; Ward Two, O. H. Greenleaf, G. R. Townsley, J. F. Tannatt; Ward Three, Charles A. Winchester, W. H. Smith, A. N. Merrick; Ward Four, N. A. Leonard, A. L. Soule, Henry S. Lee; Ward Five, Charles Phelps, William Collins, S. W. Porter; Ward Six, L. H. Taylor; Ward Seven, Peter Valentine; Ward Eight, George Foster.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1865.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, Henry S. Hyde; Ward Two, George R. Townsley; Ward Three, Otis Childs; Ward Four, Frederick H. Harris; Ward Five, Charles Barrows; Ward Six, Warren H. Wilkinson; Ward Seven, Virgil Perkins; Ward Eight, Andrew J. Plumer.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, John Mulligan, W. H. Allis, H. S. Noyes; Ward Two, Gideon Wells, John Olmsted, J. F. Tannatt; Ward Three, William H. Smith, J. F. Tapley, H. N. Tinkham; Ward Four, N. A. Leonard, Henry S. Lee, S. J. Hall; Ward Five, Charles Phelps, S. W. Porter, J. Q. A. Sexton; Ward Six, Gustavus D. Tapley; Ward Seven, Rawson Hathaway; Ward Eight, George Foster.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1866.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, William Pynchon; Ward Two, D. H. Brigham; Ward Three, Tim Henry; Ward Four, F. H. Harris; Ward Five, G. W. Harrison; Ward Six, W. H. Wilkinson; Ward Seven, John G. Taylor (died), Rawson Hathaway; Ward Eight, John Severson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, William L. Smith; Ward One, J. H. Demond, Warren Emerson, J. C. McIntosh; Ward Two, Gideon Wells, H. M. Morehouse, George Dwight, Jr.; Ward Three, H. N. Tinkham, William H. Smith, Joseph H. Damon; Ward Four, D. B. Wesson, William L. Smith, W. S. Marsh; Ward Five, Charles Phelps, S. W. Porter, Charles Chapman; Ward Six, Gustavus D. Tapley; Ward Seven, John M. Meggett; Ward Eight, Samuel Mills.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1867.

MAYOR—ALBERT D. BRIGGS.

ALDERMEN—Ward One, John Mulligan; Ward Two, Tim Henry; Ward Three, H. N. Tinkham; Ward Four, F. H. Harris; Ward Five, Samuel W. Porter; Ward Six, Amos Call; Ward Seven, Rawson Hathaway; Ward Eight, John Severson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, William L. Smith; Ward One, J. C. McIntosh, Warren Emerson, J. H. Demond; Ward Two, H. M. Morehouse, C. S. Hurlbut, L. A. Tifft; Ward Three, Charles Marsh, H. K. W. Dickinson, P. S. Bailey; Ward Four, W. L. Smith, W. S. Marsh, L. J. Powers; Ward Five, Charles Chapman, A. H. Clark, J. S. Brown; Ward Six, Charles A. Call; Ward Seven, E. W. Clark; Ward Eight, Samuel Mills.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1868.

MAYOR—CHARLES A. WINCHESTER.

ALDERMEN—Ward One, John Mulligan; Ward Two, Tim Henry; Ward Three, H. N. Tinkham; Ward Four, W. S. Marsh; Ward Five, Samuel W. Porter; Ward Six, Amos Call; Ward Seven, E. W. Clark; Ward Eight, Milo Chapin.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Warren Emerson, Josiah Bumstead, Roswell Lee; Ward Two, O. H. Greenleaf, Charles R. Ladd, Lewis A. Tifft; Ward Three, E. H. Patch, A. J. McIntosh, William H. Smith; Ward Four, Henry S. Lee, E. G. Norton, M. A. Clyde; Ward Five, Cyrus E. Buckland, Alden Warner, William R. Purple; Ward Six, George E. Howard; Ward Seven, Charles Gage; Ward Eight, George Swetland.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1869.

MAYOR—CHARLES A. WINCHESTER.

ALDERMEN—Ward One, J. M. Cooley; Ward Two, George Dwight; Ward Three, William H. Smith; Ward Four, W. S. Marsh; Ward Five, Joseph M. Hall; Ward Six, George E. Howard; Ward Seven, Charles Gage; Ward Eight, Charles J. Goodwin.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, George M. Atwater, Josiah Bumstead, John Olmsted; Ward Two, Charles R. Ladd, O. H. Greenleaf, C. C. Smith; Ward Three, A. J. McIntosh, E. H. Patch, J. H. Appleton; Ward Four, Henry S. Lee, E. G. Norton, L. J. Powers; Ward Five, Alden Warner, E. B. Haskell, W. P. Taylor; Ward Six, I. P. Dickinson; Ward Seven, William H. Pinney; Ward Eight, George Swetland.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1870.

MAYOR—WILLIAM L. SMITH.

ALDERMEN—Ward One, J. A. Rumrill; Ward Two, Eliphalet Trask; Ward Three, Dr. John Hooker; Ward Four, Willis Phelps; Ward Five, Joseph M. Hall; Ward Six, I. P. Dickinson; Ward Seven, William H. Pinney; Ward Eight, George Foster.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Albert Holt, A. D. Day, C. B. Holbrook; Ward Two, George Dwight, Jr., James S. Bourke, David Legro; Ward Three, James E. McIntire, George W. Tapley, George S. Lewis; Ward Four, Henry S. Lee, Gurdon Bill, S. R. Phillips; Ward Five, Charles Phelps, William B. Miller, T. B. Wilson; Ward Six, George E. Howard; Ward Seven, John A. Hall; Ward Eight, Alfred S. Packard.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1871.

MAYOR—WILLIAM L. SMITH.

ALDERMEN—Ward One, Josiah Bumstead; Ward Two, Charles R. Ladd; Ward Three, Lawson Sibley; Ward Four, James M. Thompson; Ward Five, Richard F. Hawkins; Ward Six, Isaac P. Dickinson; Ward Seven, John A. Hall; Ward Eight, Noyes Barstow.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Albert Holt, P. W. Brewster, F. J. Donahue; Ward Two, Milton Bradley, Tilly Haynes, R. Warren; Ward Three, B. C. English, S. B. Spooner, N. C. Newell; Ward Four, Henry S. Lee, Henry M. Phillips, E. A. Perkins; Ward Five, T. B. Wilson, J. C. Perry, E. B. Maynard; Ward Six, George E. Howard; Ward Seven, J. W. Lull; Ward Eight, George Swetland.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1872.

MAYOR—SAMUEL B. SPOONER.

ALDERMEN—Ward Two, Charles R. Ladd; Ward Three, William H. Smith; Ward Four, Emerson Wight; Ward Five, Joseph M. Hall, R. F. Hawkins; Ward Six, George E. Howard; Ward Seven, William H. Pinney; Ward Eight, Noyes Barstow.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, M. P. Knowlton; Ward One, F. J. Donahue, L. H. Powers, N. W. Fisk; Ward Two, O. H. Greenleaf, George W. Ray, Henry F. Trask; Ward Three, N. C. Newell, Samuel Palmer, George M. Smith; Ward Four, E. A. Perkins, H. M. Phillips, V. N. Taylor; Ward Five, M. P. Knowlton, E. B. Maynard, P. H. M. Brooks; Ward Six, E. A. Newell; Ward Seven, J. W. Lull; Ward Eight, W. L. Converse.

CLERK—Lucius E. Ladd.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1873.

MAYOR—SAMUEL B. SPOONER.

ALDERMEN—Ward One, H. S. Hyde; Ward Two, George W. Ray; Ward Three, E. H. Patch; Ward Four, Emerson Wight; Ward Five, R. F. Hawkins; Ward Six, George E. Howard; Ward Seven, L. A. Tifft; Ward Eight, Noyes Barstow.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, M. P. Knowlton; Ward One, Florence J. Donahue, Noyes W. Fisk, Albert Holt; Ward Two, O. H. Greenleaf, H. F. Trask, S. C. Warriner; Ward Three, Joseph K. Newell, Charles M. Lee, Charles M. King; Ward Four, Varnum N. Taylor, E. A. Perkins, H. M. Phillips; Ward Five, M. P. Knowlton, J. D. McKnight, W. G. Chamberlain; Ward Six, E. A. Newell; Ward Seven, B. F. Farrar; Ward Eight, John Warriner.

CLERK—John A. Hall.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1874.

MAYOR—JOHN M. STEBBINS.

ALDERMEN—Ward One, Albert Holt; Ward Two, Hugh Donnelly; Ward Three, A. J. McIntosh; Ward Four, L. J. Powers; Ward Five, Albert W. Allen; Ward Six, I. P. Dickinson; Ward Seven, J. W. Lull; Ward Eight, Henry C. Fuller.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, T. B. Wilson; Ward One, D. J. Curtis, Horace Wheeler, James A. Byrnes; Ward Two, L. B. Lillie, M. L. Tourtellotte, P. J. Ryan; Ward Three, B. S. Haskins, Charles A. King, August Sheppert; Ward Four, J. H. Appleton, Homer Foot, Jr., D. J. Marsh; Ward Five, W. G. Chamberlain, T. B. Wilson, Benjamin Hannis; Ward Six, Daniel Schoonmaker; Ward Seven, E. W. Ladd; Ward Eight, John Warriner.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1875.

MAYOR—EMERSON WIGHT.

ALDERMEN—Ward One, Hinsdale Smith; Ward Two, D. H. Brigham; Ward Three, F. H. Fuller; Ward Four, L. J. Powers; Ward Five, W. G. Chamberlain; Ward Six, Amos Call; Ward Seven, Rawson Hathaway; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Henry S. Lee; Ward One, Horace Wheeler, James A. Byrnes, N. W. Fisk; Ward Two, S. E. Seymour, H. F. Trask, M. L. Tourtellotte; Ward Three, J. K. Newell, A. J. Plumer, J. K. Winter; Ward Four, Henry S. Lee, D. L. Harris, J. S. Carr; Ward Five, B. S. Haskins, Benjamin Hannis, E. S. Stacy; Ward Six, Daniel Schoonmaker; Ward Seven, E. P. Cook; Ward Eight, D. P. Woolson.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1876.

MAYOR—EMERSON WIGHT.

ALDERMEN—Ward One, N. W. Talcott; Ward Two, George Dwight; Ward Three, J. K. Newell; Ward Four, Henry S. Lee; Ward Five, N. I. Hawley; Ward Six, D. L. Swan; Ward Seven, Rawson Hathaway; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, H. F. Trask; Ward One, John Mulligan, J. M. Cooley, J. J. Moore; Ward Two, Milton Bradley, H. F. Trask, M. L. Tourtellotte; Ward Three, H. N. Tinkham, J. F. Tapley, Elijah Nichols; Ward Four, W. S. Shurtleff, D. L. Harris, J. S. Carr; Ward Five, H. W. Phelps, Edwin McElwain, E. S. Stacy; Ward Six, R. R. McGregor; Ward Seven, Larkin Newell; Ward Eight, Samuel F. Smith.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1877.

MAYOR—EMERSON WIGHT.

ALDERMEN—Ward One, John Olmsted; Ward Two, George Dwight; Ward Three, J. F. Tapley; Ward Four, Henry S. Lee; Ward Five, N. I. Hawley (resigned), Benj. Hannis; Ward Six, D. L. Swan; Ward Seven, W. H. Pinney; Ward Eight, H. K. Wight.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, H. F. Trask; Ward One, John Mulligan, N. W. Fisk, L. H. Powers; Ward Two, H. F. Trask, M. L. Tourtellotte, George E. Frink; Ward Three, H. N. Tinkham, Elijah Nichols, George B. Smith; Ward Four, Daniel L. Harris, William S. Shurtleff, J. K. Newell; Ward Five, Edwin McElwain, John A. Hall, A. J. Wright; Ward Six, H. C. Puffer; Ward Seven, E. W. Ladd; Ward Eight, Milo Chapin.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1878.

MAYOR—EMERSON WIGHT.

ALDERMEN—Ward One, John Olmsted; Ward Two, George Dwight; Ward Three, J. F. Tapley; Ward Four, Henry S. Lee; Ward Five, John A. Hall; Ward Six, D. L. Swan; Ward Seven, W. H. Pinney; Ward Eight, H. K. Wight.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, A. J. Wright; Ward One, John Mulligan, L. H. Powers, E. Belding; Ward Two, Dr. H. G. Stickney, Dr. A. R. Rice, E. M. Bartlett; Ward Three, Elijah Nichols, George B. Smith, J. R. Smith; Ward Four, W. S. Shurtleff, J. K. Newell, H. A. Gould; Ward Five, A. J. Wright, N. W. Howard, S. L. Hodgdon; Ward Six, George R. Dickinson; Ward Seven, Edwin W. Ladd; Ward Eight, F. M. Bardwell.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1879.

MAYOR—LEWIS J. POWERS.

ALDERMEN—Ward One, John Olmsted; Ward Two, George Dwight; Ward Three, J. F. Tapley; Ward Four, George W. Tapley; Ward Five, Benjamin Hannis; Ward Six, George R. Dickinson; Ward Seven, E. W. Ladd; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, J. R. Smith; Ward One, John Mulligan, E. Belding, J. W. Baldwin; Ward Two, E. H. Phelps, Horace Jacobs, F. A. Judd; Ward Three, J. R. Smith, Elijah Nichols, Frank E. Winter; Ward Four, Henry A. Gould, George B. Holbrook, C. J. Sanderson; Ward Five, N. W. Howard, S. L. Hodgdon, M. J. Chamberlain; Ward Six, E. M. Lombard; Ward Seven, Charles Taylor; Ward Eight, F. M. Bardwell.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1880.

MAYOR—LEWIS J. POWERS.

ALDERMEN—Ward One, John Olmsted; Ward Two, S. C. Warriner; Ward Three, J. F. Tapley; Ward Four, George W. Tapley; Ward Five, Benjamin Hannis; Ward Six, George R. Dickinson; Ward Seven, E. W. Ladd; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Elijah Belding; Ward One, E. Belding, Ethan C. Robinson, Harlan P. Stone; Ward Two, Fred A. Judd, E. H. Young, E. M. Bartlett; Ward Three, Elijah Nichols, Frank E. Winter, Emory Meekins; Ward Four, George B. Holbrook, Charles J. Sanderson, William H. Haile; Ward Five, Nathaniel W. Howard, Sewall L. Hodgdon, James D. Gill; Ward Six, Edward M. Lombard; Ward Seven, Charles Taylor; Ward Eight, Frank M. Bardwell.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1881.

MAYOR—WILLIAM H. HAILE.

ALDERMEN—Ward One, Elijah Belding; Ward Two, Stephen E. Seymour; Ward Three, Elijah Nichols; Ward Four, Edward P. Chapin; Ward Five, Oscar D. Adams; Ward Six, Edward M. Lombard; Ward Seven, George Nye; Ward Eight, H. K. Wight.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Charles J. Sanderson; Ward One, Harlan P. Stone, Hoyt E. Howard, Henry J. Beebe; Ward Two, Fred A. Judd, Edwin M. Bartlett, John Lobsitz; Ward Three, George P. Stebbins, Jacob C. Lutz, Simpson Clark; Ward Four, Charles J. Sanderson, William B. Walker, Edmund P. Kendrick; Ward Five, James D. Gill, Henry Dana, James F. Brierly; Ward Six, Albert E. Foth; Ward Seven, William C. Bemis; Ward Eight, George Foster.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1882.

MAYOR—EDWIN W. LADD.

ALDERMEN—Ward One, Henry D. Carroll; Ward Two, Stephen E. Seymour; Ward Three, Elijah Nichols; Ward Four, Edward P. Chapin; Ward Five, Oscar D. Adams; Ward Six, Edward M. Lombard; Ward Seven, George Nye; Ward Eight, Davenport L. Fuller.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, Edmund P. Kendrick; Ward One, Harlan P. Stone, Henry J. Beebe, Ethan C. Robinson; Ward Two, Fred A. Judd, Frank M. Bugbee, Frank E. Carpenter; Ward Three, Simpson Clark, Jacob C. Lutz, James D. Parsons; Ward Four, Edmund P. Kendrick, James C. Alden, Edward C. Rogers; Ward Five, Henry Dana, Charles E. Dodge, Charles Fuller; Ward Six, George McGregory; Ward Seven, John S. Sanderson; Ward Eight, Edward D. Chapman.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1883.

MAYOR—HENRY M. PHILLIPS.

ALDERMEN—Ward One, Harlan P. Stone; Ward Two, Fred A. Judd; Ward Four, James Kirkham; Ward Four, James C. Alden; Ward Five, James D. Gill; Ward Six, Charles A. Call; Ward Seven, George Nye; Ward Seven, John S. Sanderson.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, E. P. Kendrick; Ward One, Charles McKay, J. F. Callanan, John L. Knight; Ward Two, Frank E. Carpenter, Frank M. Bugbee, James A. Bill, Jr.; Ward Three, Jacob C. Lutz, Simpson Clark, W. F. Cook; Ward Four, Edmund P. Kendrick, Edward C. Rogers, Thomas D. Lyon; Ward Five, George H. Wells, James Kimball, Whiteman T. Steere; Ward Six, Oscar S. Greenleaf; Ward Seven, George W. Hall; Ward Eight, John Rivers.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1884.

MAYOR—HENRY M. PHILLIPS.

ALDERMEN—Ward Two, Andrew Y. Beach; Ward Three, Jacob C. Lutz; Ward Four, George W. Tapley; Ward Five, Henry M. Brewster; Ward Six, Charles A. Call; Ward Seven, George Nye, John S. Sanderson; Ward Eight, Davenport L. Fuller.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Edward C. Rogers; Ward One, Henry L. Whitcomb, John L. Knight, Patrick C. O'Connor; Ward Two, Hosea C. Lombard, James A. Bill, Jr., James N. Dodge; Ward Three, Simpson Clark, George F. Clark, James S. Adams; Ward Four, Edward C. Rogers, Charles L. Long, Thomas D. Lyon; Ward Five, George H. Wells, James Kimball, J. H. Hendrick; Ward Six, Oscar S. Greenleaf; Ward Seven, George W. Hall; Ward Eight, John Rivers.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1885.

MAYOR—HENRY M. PHILLIPS.

ALDERMEN—Ward One, John L. Knight; Ward Two, Andrew Y. Beach; Ward Three, Jacob C. Lutz; Ward Four, Daniel P. Crocker; Ward Five, Charles Taylor; Ward Six, Charles A. Call; Ward Seven, John S. Sanderson; Ward Eight, George W. Miller.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Charles L. Long; Ward One, George E. Frink, James F. Bidwell, Henry M. Castle; Ward Two, James A. Bill, Jr., Hosea C. Lombard, Edwin F. Lyford; Ward Three, Edgar C. Whittemore, Richard D. Whitney, John H. Clune; Ward Four, Henry H. Bowman, Charles L. Long, Alfred N. Mayo; Ward Five, George H. Wells, Joel H. Hendrick, James Kimball; Ward Six, Oscar S. Greenleaf; Ward Seven, Richard W. Pinney; Ward Eight, Horatio E. D. Green.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1886.

MAYOR—EDWIN D. METCALF.

ALDERMEN—President, Andrew Y. Beach; Ward One, James F. Bidwell; Ward Two, Andrew Y. Beach; Ward Three, George B. Holbrook; Ward Four, George W. Tapley; Ward Five, Joel H. Hendrick; Ward Six, Walter H. Wesson; Ward Seven, Richard W. Pinney; Ward Eight, George W. Miller.

CLERK—A. T. Folsom.

COMMON COUNCILMEN—President, Charles L. Long; Ward One, George E. Frink, Charles A. Fisk, R. Hale Smith; Ward Two, James A. Bill, Jr., Edwin F. Lyford, Samuel J. Whyte; Ward Three, John H. Clune, Claudius C. Margerum, William F. Callender; Ward Four, Charles L. Long, Henry H. Bowman, Alfred N. Mayo; Ward Five, Thomas S. Stewart, Edward S. Bradford, Marcus M. Kendall; Ward Six, William L. Dickinson; Ward Seven, George W. Hall; Ward Eight, Horatio E. D. Green.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

CITY OFFICERS FOR 1887.

MAYOR—E. B. MAYNARD.

ALDERMEN—President, James F. Bidwell; Ward One, James F. Bidwell; Ward Two, Frank M. Bugbee; Ward Three, William F. Callender; Ward Four, William H. Wright; Ward Five, Sherman D. Porter; Ward Six, William L. Dickinson; Ward Seven, Richard W. Pinney; Ward Eight, John Rivers.

CLERK—Albert T. Folsom.

COMMON COUNCILMEN—President, Henry H. Bowman; Ward One, Frederick H. Stebbins, John Dollan, Frank C. Leonard; Ward Two, Frank S. Crane, James A. Bill, Jr., Newrie D. Winter; Ward Three, Claudius C. Margerum, James E. Dunleavy, Howard N. Newell; Ward Four, Henry H. Bowman, William W. More, Charles E. Brown; Ward Five, Edward S. Bradford, Marcus M. Kendall, William C. Newell; Ward Six, Edward J. Flannery; Ward Seven, Landomer E. Pease; Ward Eight, James H. Morley.

CLERK—E. A. Newell.

CITY CLERK AND TREASURER—Albert T. Folsom.

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CITY OFFICERS FOR 1888.

MAYOR—E. B. MAYNARD.

ALDERMEN—President, Frank M. Bugbee; Ward One, John C. McIntosh; Ward Two, Frank M. Bugbee; Ward Three, Lawson Sibley; Ward Four, William H. Wright; Ward Five, Sherman D. Porter; Ward Six, William L. Dickinson; Ward Seven, Richard W. Pinney; Ward Eight, John Rivers.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Newrie D. Winter; Ward One, Frederick H. Stebbins, Frank C. Leonard, George W. Turner; Ward Two, Newrie D. Winter, Charles C. Parkhurst, Edward F. Tower; Ward Three, James E. Dunleavy, Frederick S. Newman, Leonard Schadt; Ward Four, William W. More, Charles E. Brown, George Leonard; Ward Five, Edward S. Bradford, Marcus M. Kendall, James W. Anderson; Ward Six, Edward J. Flannery; Ward Seven, Charles E. Ladd; Ward Eight, E. A. Grise.

CLERK—Tom Fitzgibbon.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1889.

MAYOR—EDWARD S. BRADFORD.

ALDERMEN—President, John C. McIntosh; Ward One, John C. McIntosh; Ward Two, Charles C. Parkhurst; Ward Three, Herbert C. Puffer; Ward Four, John A. Murphy; Ward Five, John McFethries; Ward Six, Henry S. Dickinson; Ward Seven, George W. Hall; Ward Eight, Orson Moulton.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, George Leonard; Ward One, George W. Turner, Leroy Z. Cutler, William F. Ray; Ward Two, Waldo R. Forrester, Francke W. Dickinson, Dr. George E. Foster; Ward Three, Leonard Schadt, Jacob G. Lutz, John P. Casman; Ward Four, William W. More, George Leonard, Charles Van Vlack; Ward Five, Milan W. Bull, Ruel R. Nickerson, Thomas H. Benton; Ward Six, Cornelius W. Phillips; Ward Seven, Charles E. Ladd; Ward Eight, Loren W. King.

CLERK—Andrew O. McGarrett.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1890.

MAYOR—EDWARD S. BRADFORD.

ALDERMEN—President, Henry S. Dickinson; Ward One, George W. Turner; Ward Two, Charles C. Parkhurst; Ward Three, George B. Holbrook; Ward Four, John A. Murphy; Ward Five, Edmund P. Kendrick; Ward Six, Henry S. Dickinson; Ward Seven, George W. Hall; Ward Eight, Orrin E. Tilley.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, George Leonard; Ward One, Leroy Z. Cutler, William F. Ray, Louis C. Hyde, Ward Two, Francke W Dickinson, George D Fisk, John B. King; Ward Three, John P. Casman, Arthur A. Couch, George J. Seuss; Ward Four, George Leonard, Charles Van Vlack, Frederick H. Gillett; Ward Five, Milan W. Bull, George H. Clark, George H. Kemater; Ward Six, Cornelius W. Phillips; Ward Seven, Benjamin C. Harvey; Ward Eight, Charles E. Jennings.

CLERK—Andrew O. McGarrett.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

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CITY OFFICERS FOR 1891.

MAYOR—EDWARD S. BRADFORD.

ALDERMEN—President, John A. Murphy; Ward One, Louis C. Hyde; Ward Two, Charles C. Parkhurst; Ward Three, George B. Holbrook; Ward Four, John A. Murphy; Ward Five, Edward H. Lathrop; Ward Six, Frederick Harris; Ward Seven, Benjamin C. Harvey; Ward Eight, Orrin E. Tilley.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Francke W. Dickinson; Ward One, Henry E. Marsh, John McDonald, Charles H. Mulligan; Ward Two, Francke W. Dickinson, John B. King, Dwight O. Gilmore; Ward Three, George J. Seuss, Charles W. Turk, Jeremiah F. Mahoney; Ward Four, Charles Van Vlack, W. F. Adams, James D. Norton; Ward Five, Milan W. Bull, George H. Clark, George H. Kemater; Ward Six, George M. Stebbins; Ward Seven, Thomas A. Holland; Ward Eight, Charles E. Jennings.

CLERK—Andrew O. McGarrett.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1892.

MAYOR—LAWSON SIBLEY.

ALDERMEN—President, Frederick Harris; Ward One, Louis C. Hyde; Ward Two, Frank E. Carpenter; Ward Three, Claudius C. Margerum; Ward Four, Charles M. Mather; Ward Five, Samuel D. Sherwood; Ward Six, Frederick Harris; Ward Seven, Benjamin C. Harvey; Ward Eight, Leonard B. Richardson.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, James D. Norton; Ward One, William P. Hayes, Charles H. Mulligan, Henry W. Sexton; Ward Two, Edwin A. Carter, Dwight O. Gilmore, James J. Sullivan; Ward Three, George J. Seuss, Jeremiah F. Mahoney, John Sharrocks; Ward Four, W. F. Adams, James D. Norton, Charles E. Stickney; Ward Five, William M. Gray, William A. Harris, Stillman L. Tuttle; Ward Six, George M. Stebbins; Ward Seven, Thomas A. Holland; Ward Eight, Henry A. Braman.

CLERK—Andrew O. McGarrett. (resigned)—Wm. E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1893.

MAYOR—EDMUND P. KENDRICK.

ALDERMEN—President, George Nye; Ward One, Olin H. Smith; Ward Two, Dwight O. Gilmore; Ward Three, Claudius C. Margerum; Ward Four, Henry H. Bowman; Ward Five, George Nye; Ward Six, Nathan D. Bill; Ward Seven, Benjamin C. Harvey; Ward Eight, Leonard B. Richardson.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, James D. Norton; Ward One, William P. Hayes, Charles H. Mulligan, Winford N. Caldwell; Ward Two, Walter G. Morse, Charles W. Perkins, George B. Rathbun; Ward Three, Harry P. Elsey, George F. Sessions, Charles Workheiser; Ward Four, W. F. Adams, James D. Norton, Charles E. Stickney; Ward Five, William A. Harris, Edwin S. Field, Frederick B. Miller; Ward Six, Eugene Young; Ward Seven, William H. Gage; Ward Eight, Merrill E. Streeter.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—E. T. Tifft.

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CITY OFFICERS FOR 1894.

MAYOR—EDMUND P. KENDRICK.

ALDERMEN—President, Henry H. Bowman; Ward One, Olin H. Smith; Ward Two, Dwight O. Gilmore; Ward Three, Gustave Remkus; Ward Four, Henry H. Bowman; Ward Five, George A. Russell; Ward Six, Claudius C. Margerum; Ward Seven, Daniel W. Ware; Ward Eight, Merrill E. Streeter.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, George F. Sessions; Ward One, William C. Hayes, Charles L. Burr, George F. Fuller; Ward Two, Maurice P. Cavanaugh, Charles W. Perkins, Frank H. Elwell; Ward Three, Harry P. Elsey, George F. Sessions, Robert A. Grant; Ward Four, Howard A. Gibbs, Robert A. Knight, Paul R. Hawkins; Ward Five, Edwin S. Field, Frederick B. Miller, Fred C. Wright; Ward Six, Edward C. Hamilton; Ward Seven, William S. Bemis; Ward Eight, Philip C. Sullivan.

CLERK—William E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1895.

MAYOR—CHARLES L. LONG.

ALDERMEN—President, George A. Russell; Ward One, George F. Fuller; Ward Two, Albert E. Foth; Ward Three, Gustave Remkus; Ward Four, Henry L. Gaylord; Ward Five, George A. Russell; Ward Six, Walter P. Goodenough; Ward Seven, Daniel W. Ware; Ward Eight, Merrill E. Streeter.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Robert A. Knight; Ward One, Charles L. Burr, Lewis D. Robinson, Willard F. Tripp; Ward Two, Maurice P. Cavanaugh, Frank H. Elwell, Charles D. Rathbun; Ward Three, Adin W. Bangs, Robert A. Grant, George W. D. Upton; Ward Four, Howard A. Gibbs, Paul R. Hawkins, Robert A. Knight; Ward Five, Albert P. Casey, Augustus A. Howard, Frederick B. Miller; Ward Six, Edward C. Hamilton; Ward seven, Charles E. Ladd; Ward Eight, John R. Reed.

CLERK—William E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

CITY OFFICERS FOR 1896.

MAYOR—NEWRIE D. WINTER.

ALDERMEN—President, Henry S. Dickinson; Ward One, Charles L. Burr; Ward Two, Dwight O. Gilmore; Ward Three, George J. Souss; Ward Four, Henry S. Dickinson; Ward Five, Charles H. Parsons; Ward Six, Charles Rogers; Ward Seven, Charles E. Ladd; Ward Eight, Octave A. La Riviere.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Maurice P. Cavanaugh; Ward One, Frank H. Bills, William J. McCann, Willard F. Tripp; Ward Two, Maurice P. Cavanaugh, Harry C. Collins, Charles T. Winchester; Ward Three, Henry D. Marsh, Frank D. Quilty, George W. D. Upton; Ward Four, Ralph W. Ellis, Zera W. Smith, Fred H. Sturtevant; Ward Five, Frank W. Barker, Augustus A. Howard, Edward R. Lee; Ward Six, Frank D. Kemp; Ward Seven, William W. Bartlett; Ward Eight, Charles O. Churchill.

CLERK—William E. Gilbert.

CITY CLERK—E. A. Newell.

CITY TREASURER—E. T. Tifft.

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CITY OFFICERS FOR 1897.

MAYOR—HENRY S. DICKINSON.

ALDERMEN—President, Dwight O. Gilmore; Ward One, Willard F. Tripp; Ward Two, Charles H. Mulligan; Ward Three, Dwight O. Gilmore; Ward Four, Ralph W. Ellis; Ward Five, Charles C. Lewis; Ward Six, Edward C. Hamilton; Ward Seven, Charles E. Brown; Ward Eight, Homer D. Packard.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Frank W. Barker; Ward One, Orville A. Dodge, Lewis D. Robinson; Ward Two, Luke J. Coogan, Henry D. Shaw, Harry J. Vesper; Ward Three, Charles H. Dunham, Frank H. Elwell; Ward Four, Lewis F. Carr, Charles E. Newell; Ward Five, Frank W. Barker, Stanford L. Haynes; Ward Six, Fred A. Bearse, Dennis Casey, Jr.; Ward Seven, George A. Bacon, William W. Bartlett; Ward Eight, Charles O. Churchill, Alexander C. Methven, Fordis C. Parker.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1898.

MAYOR—HENRY S. DICKINSON.

ALDERMEN—President, Dwight O. Gilmore; Ward One, Lewis D. Robinson; Ward Two, Charles H. Mulligan; Ward Three, Dwight O. Gilmore; Ward Four, Ralph W. Ellis; Ward Five, Charles C. Lewis; Ward Six, Edward C. Hamilton; Ward Seven, Charles E. Brown; Ward Eight, Homer D. Packard.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Fordis C. Parker; Ward One, Orville A. Dodge, Franklin A. Latimer, Jr.; Ward Two, Luke J. Coogan, Matthew R. Mansfield, William A. Strange; Ward Three, Edward T. Davis, Harry H. Parkhurst; Ward Four, Lewis F. Carr, Charles E. Newell; Ward Five, Fordis C. Parker, Stanford L. Haynes; Ward Six, Fred A. Bearse, Samuel M. Jones; Ward Seven, George A. Bacon, Seth J. Buckland; Ward Eight, Albert E. W. Drake, Alexander C. Methven, William F. Mundell.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1899.

MAYOR—DWIGHT O. GILMORE.

ALDERMEN—President, Charles H. Mulligan; Ward One, Franklin A. Latimer, Jr.; Ward Two, Charles H. Mulligan; Ward Three, Frank H. Elwell; Ward Four, Edwin A. Blodgett; Ward Five, Fordis C. Parker; Ward Six, Fred. A. Bearse; Ward Seven, Julius F. Carman; Ward Eight, Alexander C. Methven.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Fred O. Clapp; Ward One, Fred O. Clapp, Edwin B. Woodin; Ward Two, Luke J. Coogan, Patrick J. McCarty, Patrick J. Mitchell; Ward Three, Gottlieb Baer, George W. D. Upton; Ward Four, Lincoln C. Haynes, William W. Tapley; Ward Five, Theodore F. Dwight, Charles A. Wright; Ward Six, Frederick S. Ladd, George Smith; Ward Seven, Albert G. Bennett, Jr., Seth J. Buckland; Ward Eight, Albert E. W. Drake, William F. Mundell, Woodward E. Murkland.

CLERK—William E. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1900.

MAYOR—WILLIAM P. HAYES.

ALDERMEN—President, Edwin A. Blodgett; Ward One, Fred O. Clapp; Ward Two, Henry W. Fitch; Ward Three, Frank H. Elwell; Ward Four, Edwin A. Blodgett; Ward Five, Fordis C. Parker; Ward Six, Fred A. Bearse; Ward Seven, Julius F. Carman; Ward Eight, Alexander C. Methven.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Albert G. Bennett, Jr.; Ward One, Clifford P. Kibbe, William E. Sanderson; Ward Two, Patrick J. Mitchell, James E. Dunn, John M. Sullivan; Ward Three, George W. D. Upton, Napoleon L. Byron; Ward Four, William W. Tapley, F. Winthrop Edwards; Ward Five, Theodore F. Dwight, George Nye, Jr.; Ward Six, George Smith, Eugene M. Tinkham; Ward Seven, Albert G. Bennett, Jr., William A. Newton; Ward Eight, William F. Mundell, Oliver E. Hines, Everett E. Stone.

CLERK—William E. Gilbert (resigned), H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1901.

MAYOR—WILLIAM P. HAYES.

ALDERMEN—President, Fred O. Clapp; Ward One, Fred O. Clapp; Ward Two, Henry W. Fitch; Ward Three, Henry D. Marsh; Ward Four, William W. Tapley; Ward Five, Henry H. Bosworth; Ward Six, Frank D. Kemp; Ward Seven, Albert G. Bennett, Jr.; Ward Eight, Edward J. Murphy.

CLERK—E. A. Newell.

COMMON COUNCILMEN—President, Everett E. Stone; Ward One, Clifford P. Kibbe, William E. Sanderson; Ward Two, Patrick J. Mitchell, James E. Dunn, Patrick J. Delaney; Ward Three, George H. McClean, William W. Warren; Ward Four, F. Winthrop Edwards, Henry P. Norris; Ward 5, Calvin S. Whitcomb, George Nye, Jr.; Ward Six, John J. Hamilton, Eugene M. Tinkham; Ward Seven, Henry G. Chapin, William A. Newton; Ward 8, Oliver E. Hines, Everett E. Stone, William T. Webster.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1902.

MAYOR—RALPH W. ELLIS.

ALDERMEN—President, Fred O. Clapp; Ward One, Fred O. Clapp; Ward Two, Henry W. Fitch; Ward Three, Napoleon L. Byron; Ward Four, William W. Tapley; Ward Five, Henry H. Bosworth; Ward Six, Paul R. Hawkins; Ward Seven, Albert G. Bennett, Jr.; Ward Eight, Everett E. Stone.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, William E. Sanderson; Ward One, Clifford P. Kibbe, William E. Sanderson; Ward Two, Sylvester P. Callanan, Patrick J. Delaney, James E. Dunn; Ward Three, Charles F. Bogardus, George H. McClean; Ward Four, Henry P. Norris, Alfred F. H. Pillsbury; Ward Five, George Nye, Jr., Calvin S. Whitcomb; Ward Six, Joseph C. Allen, John J. Hamilton; Ward Seven, Henry G. Chapin, Edward O. Doten; Ward Eight, Henry S. Keyes, Charles S. Potter, William T. Webster.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1903.

MAYOR—EVERETT E. STONE.

ALDERMEN—President, Napoleon L. Byron; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, Napoleon L. Byron; Ward Four, Henry P. Norris; Ward Five, Francke W. Dickinson; Ward Six, Joseph C. Allen; Ward Seven, Oscar S. Greenleaf; Ward Eight, Oliver E. Hines.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Henry G. Chapin; Ward One, William C. Bartlett, Wayland V. James; Ward Two, Patrick J. Delaney, Thomas J. Burke, William H. Grady; Ward Three, George V. Lovely, Samuel H. Trask; Ward Four, Alfred F. H. Pillsbury, Arthur H. Rogers; Ward Five, William A. Dodge, Fred L. Safford; Ward Six, Clinton Gowdy, Albert R. Green; Ward Seven, Albert W. Allen, Henry G. Chapin; Ward Eight, Henry S. Keyes, Charles S. Potter, Edward P. Blague.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1904.

MAYOR—EVERETT E. STONE.

ALDERMEN—President, Napoleon L. Byron; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, Napoleon L. Byron; Ward Four, Henry P. Norris; Ward Five, Francke W. Dickinson; Ward Six, Frederick S. Ladd; Ward Seven, Oscar S. Greenleaf; Ward Eight, William R. Sessions.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Henry G. Chapin; Ward One, William C. Bartlett, Henry N. Bowman; Ward Two, Thomas J. Burke, William H. Grady, William F. Houlihan; Ward Three, George H. Hadd, Samuel H. Trask; Ward Four, Alfred F. H. Pillsbury, Arthur H. Rogers; Ward Five, William A. Dodge, Fred L. Safford; Ward Six, Albert R. Green, Frank E. Stacy; Ward Seven, Albert W. Allen, Henry G. Chapin; Ward Eight, Henry S. Keyes, Charles S. Potter, Howard O. Buck.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1905.

MAYOR—FRANCKE W. DICKINSON.

ALDERMEN—President, William E. Sanderson; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, William S. Warriner; Ward Four, Henry P. Norris; Ward Five, Joseph P. Falt; Ward Six, Frederick S. Ladd; Ward Seven, Albert W. Allen; Ward Eight, William R. Sessions.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Charles S. Potter; Ward One, Charles Adams, Henry N. Bowman; Ward Two, William F. Houlihan, William H. Grady, Michael J. Scully; Ward Three, George H. Hadd, George H. Crouss; Ward Four, Alfred F. H. Pillsbury, Arthur H. Rogers; Ward Five, William A. Dodge, Winthrop L. Davis; Ward Six, Frank E. Stacy, Henry R. Morrissey; Ward Seven, Fred R. Brown, Edwin G. Remkus; Ward Eight, Charles S. Potter, Howard O. Buck, Ralph Waldo Wight.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1906.

MAYOR—FRANCKE W. DICKINSON.

ALDERMEN—President, William E. Sanderson; Ward One, William E. Sanderson; Ward Two, Willis A. Ford; Ward Three, William S. Warriner; Ward Four, Arthur H. Rogers; Ward Five, Joseph P. Falt; Ward Six, Frederick S. Ladd; Ward Seven, Albert W. Allen; Ward Eight, Charles S. Potter.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Ralph Waldo Wight; Ward One, Charles Adams, Henry N. Bowman; Ward Two, John J. Collins, William H. Grady, Michael J. Scully; Ward Three, George H. Hadd, George H. Crouss; Ward Four, Alfred F. H. Pillsbury, Arthur E. Corbin; Ward Five, William A. Dodge, Winthrop I. Davis; Ward Six, George D. Chamberlain, Henry R. Morrissey; Ward Seven, Fred R. Brown, John Lafayette Scott; Ward Eight, William Addison, Ralph Waldo Wight, Howard O. Buck (resigned).

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1907.

MAYOR—WILLIAM E. SANDERSON.

ALDERMEN—President, Willis A. Ford; Ward One, Henry N. Bowman; Ward Two, Willis A. Ford; Ward Three, Geo. H. Crouss; Ward Four, Arthur H. Rogers; Ward Five, Alfred F. H. Pillsbury; Ward Six, Frederick S. Ladd; Ward Seven, Fred R. Brown; Ward Eight, Charles S. Potter.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Ralph W. Wight; Ward One, Charles Adams, John Henry Curtiss; Ward Two, Geo. C. Connell, Michael J. Scully, John J. Collins; Ward Three, George H. Hadd, Albert A. Mathews; Ward Four, Edward P. Butts, Arthur E. Corbin; Ward Five, William A. Dodge, Winthrop I. Davis; Ward Six, Frank E. Stacy, George D. Chamberlain; Ward Seven, John L. Scott, Edward W. Maynard; Ward Eight, William Addison, Ralph W. Wight, George M. Howe.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1908.

MAYOR—WILLIAM E. SANDERSON.

ALDERMEN—President, Alfred F. H. Pillsbury; Ward One, Henry N. Bowman; Ward Two, Henry Lasker; Ward Three, Geo. H. Crouss, deceased—Nelson L. Elmer; Ward Four, Arthur H. Rogers; Ward Five, Alfred F. H. Pillsbury; Ward Six, George D. Chamberlain; Ward Seven, Fred R. Brown; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, Frank E. Stacy; Ward One, Charles Adams, John Henry Curtiss; Ward Two, Michael J. Scully, John J. Collins, George C. Connell; Ward Three, George H. Hadd, Albert A. Mathews; Ward Four, Edward P. Butts, John A. Denison; Ward Five, Robert N. Ingersoll, J. Frank Drake; Ward Six, Frank E. Stacy, Harcourt Wesson Bull; Ward Seven, John L. Scott, Edward W. Maynard; Ward Eight, George M. Howe, Jay W. Nickels, John W. Superneaw.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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CITY OFFICERS FOR 1909.

MAYOR—WILLIAM E. SANDERSON.

ALDERMEN—President, Henry N. Bowman; Ward One, Henry N. Bowman; Ward Two, Henry Lasker; Ward Three, Nelson L. Elmer; Ward Four, Arthur H. Rogers; Ward Five, William A. Dodge; Ward Six, George D. Chamberlain; Ward Seven, John L. Scott; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, John A. Denison; Ward One, John Henry Curtiss, Joseph G. Merrick; Ward Two, John J. Collins, James A. Sullivan, John J. Walsh; Ward Three, George H. Hadd, Albert A. Mathews; Ward Four, John A. Denison, Everett E. Belding; Ward Five, Robert N. Ingersoll, J. Frank Drake; Ward Six, Frank E. Stacy, Harcourt Wesson Bull; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Charles M. Goodwin, John G. Maxfield, Jay W. Nickels.

CLERK—H. S. Gilbert.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1910.

MAYOR—EDWARD H. LATHROP.

ALDERMEN—President, Henry N. Bowman; Ward One, Henry N. Bowman; Ward Two, Henry Lasker; Ward Three, Nelson L. Elmer; Ward Four, John A. Denison; Ward Five, William A. Dodge; Ward Six, George D. Chamberlain; Ward Seven, John L. Scott; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, J. Frank Drake; Ward One, Joseph G Merrick, Wilfred S. Armitage; Ward Two, James A. Sullivan, John J. Walsh, Jeremiah McCarthy; Ward Three, Albert A. Mathews, George W. Streeter; Ward Four, Everett E. Belding, George Marston Leonard; Ward Five, Robert N. Ingersoll, J. Frank Drake; Ward Six, Matthew H. Farrell, Patrick W. Russell; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Charles M. Goodwin, John G. Maxfield, Miller J. Meeker.

CLERK—H. S. Gilbert (resigned), George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

CITY OFFICERS FOR 1911.

MAYOR—EDWARD H. LATHROP.

ALDERMEN—President, Ralph W. Wight; Ward One, Edward S. Goldthwaite; Ward Two, Henry Lasker; Ward Three, H. Goodman Waters; Ward Four, John A. Denison; Ward Five, William A. Dodge; Ward Six, Frank E. Stacy; Ward Seven, Charles B. Hitchcock; Ward Eight, Ralph W. Wight.

CLERK—Elijah A. Newell.

COMMON COUNCILMEN—President, J. Frank Drake; Ward One, Wilfred S. Armitage, George S. Cook; Ward Two, John P. Cannon, William H. Grady, Jeremiah McCarthy; Ward Three, George W. Streeter, George W. D. Upton; Ward Four, Everett E. Belding, George Marston Leonard; Ward Five, Charles A. Allbe, J. Frank Drake; Ward Six, Matthew H. Farrell, Patrick W. Russell; Ward Seven, Julian R. Albee, Edward T. Broadhurst; Ward Eight, Charles M. Goodwin, John G. Maxfield, Miller J. Meeker.

CLERK—George J. Clark.

CITY CLERK—Elijah A. Newell.

CITY TREASURER—Eliphalet T. Tifft.

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